Management of acute care needs of RACF residents

A suite of collaborative pathways for General Practitioners and Registered Nurses

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June 2019
Management of acute care needs of RACF residents: a suite of collaborative pathways for General Practitioners and Registered Nurses

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Clinical pathway development process

The "Management of acute care needs of RACF residents" pathways were initiated by the Healthcare Improvement Unit, Clinical Excellence Queensland and have been collaboratively developed via a steering committee including the following representatives:

- General Practitioners (GPs)
- Residential Aged Care Facility (RACF) clinicians and manager representatives of both private and Queensland Health (QH) RACFs
- Consumer representation via COTA for older Australians
- Leading Age Services Australia
- Emergency physician
- Geriatricians
- Gerontic nursing representatives
- Palliative care physician representative
- RACF support services' clinical leads and clinicians
- Primary Health Network representative
- Statewide General Medicine Network chair
- Statewide Older Persons Health Clinical Network representative
- Social worker representative

Additionally, subspecialist input was sought for relevant pathways including:

- Endocrinology
- Gastrostomy services
- Infectious diseases physicians
- Neurosurgery
- Pharmacist
- Public Health physicians
- Respiratory medicine
- Urology
- Vascular surgery

The guideline development process involved:

1. Initial draft of each pathway was prepared by one Steering Committee member following review of:
   a. Existing pathways (including those of Comprehensive Aged Residential Emergency and Partners in Assessment Care and Treatment (CARE-PACT) and other national and international RACF support services)
   b. Available published evidence on the topic
   c. State, National and International evidence-based guidelines
2. Draft guideline reviewed by Steering Committee and feedback provided
3. Consultation with subspecialists where relevant
4. Revision of guidelines on basis of feedback from Steering Committee and subspecialist input
5. Endorsement by Steering Committee
6. Consultation with (and amendment in response to feedback from):
   a. Statewide Older Persons Health Clinical Network
   b. Statewide Dementia Clinical Network
   c. Statewide General Medicine Clinical Network
   d. Queensland Emergency Department Strategic Advisory Panel
   e. Statewide Surgical Advisory Committee
   f. General Practice Liaison Network
   g. Statewide RACF Support Services Community of Practice
7. User acceptability testing

These pathways will be reviewed in 2022 by a Healthcare Improvement Unit Steering Committee. Any feedback on the pathways should be emailed to: HIU@health.qld.gov.au
How to use these pathways

These pathways are intended as clinical support tools for management of the acutely unwell patient living in RACFs.

The pathways are designed for use by RACF clinical staff at Registered Nurse (RN), Clinical Nurse (CN), Clinical Nurse Consultant (CNC) or Nurse Practitioner (NP) level, in collaboration with GPs.

The recommendations within these pathways do not indicate an exclusive course of action. They do not replace the need for application of clinical judgement to each individual resident nor variations based on local policies and procedures. The pathways should not replace the clinical judgement of users. If concern exists regarding a resident’s well-being these concerns should be appropriately escalated.

Users should always stay within their scope of clinical practice.

It is recommended that RACFs ensure that they have clinical competency processes for common clinical procedures such as (but not limited to) indwelling catheter insertion, wound assessment and management, subcutaneous fluid administration and tracheostomy care. These pathways do not replace need for such clinical competency processes.

Potential uses of the pathways include:

A. As a clinical support tool for management of residents of aged care facilities who are acutely unwell:
   1. Start with assessment of residents' current vital signs
   2. Consult #Recognition of the deteriorating resident to assist in determination of whether vital signs are:
      a. Unstable = vital signs are in the red or danger area - refer to #Management of Resident with unstable vital signs pathway
      b. Stable = vital signs in the green or caution area - refer to the pathway most relevant to the residents' symptoms
   3. Take a directed history - if cognitively impaired, review additional history from other staff or family
   4. Undertake a focused physical examination
   5. Select appropriate pathway in consultation with GP

   *** Where these pathways suggest medications, these MUST be prescribed by the GP (or NP) for the individual patient and do not constitute standing orders.

B. As an educational resource for clinical staff across the continuum of care.

These pathways are not designed for use by residents or their families and should not be relied on by residents or families as professional medical advice.
Conditions of use

These pathways are intended as clinical support tools for management of the acutely unwell patients living in RACFs. They are designed for use by RACF clinical staff (at RN, CN, CNC or NP level) in collaboration with GPs.

We provide no guarantee that the information provided is up-to-date or complete and in no circumstance does the information contained within constitute professional advice for management of individual patients.

You are responsible for ensuring use of clinical judgement, and if concern exists on the basis of clinical judgement, additional clinical input should be sought.

The health professional should always remain within their scope of practice.

This manual is only endorsed for use for management of residents of aged care facilities where these are defined as facilities that:

a. Provide residential care to older persons and are funded under the Aged Care Act and are subject to Commonwealth reporting to the System for Payment of Aged Residential Care (SPARC); or
b. Are operated under the National Aboriginal and Torres Strait Islander Aged Care Program.

The pathways are only endorsed for use in QH Hospital and Health Services (HHSs) with an operational RACF acute care support service (RaSS) that meets the RaSS guideline requirements including appropriate clinical governance.

The use of a paper-based copy of the pathways should only be undertaken if this is known to have been endorsed by the HHS RaSS and is known to be the latest version.
## Hospital and Health Service contact information

<table>
<thead>
<tr>
<th>Service</th>
<th>Relevant pathways</th>
<th>Contact details</th>
<th>Hours of operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Insert name of local RaSS service] telephone triage (RACF registered nurses and clinical managers, GPs)</td>
<td>All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Insert name of local RaSS service] Consultant (for contact directly by GPs and QAS paramedics only – all other clinicians please see above telephone triage contact number)</td>
<td>All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Insert name of local HHS] dementia RACF support services</td>
<td>Behavioural emergencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dementia Australia including referrals for Severe Behaviour Response Team</td>
<td>Behavioural emergencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastrostomy support service</td>
<td>Percutaneous gastrostomy tubes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventional radiology service</td>
<td>Gastrostomy tubes that have been radiologically inserted (RIGs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Insert name of local HHS] outpatient services</td>
<td>Cardiology</td>
<td>Chest pain</td>
<td>Referrals via [insert details of local central OPD referral process]</td>
</tr>
<tr>
<td></td>
<td>Chronic pain</td>
<td>Pain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ear, Nose and Throat</td>
<td>Tracheostomy</td>
<td></td>
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<tr>
<td></td>
<td>Endocrinology</td>
<td>Hypoglycaemia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Falls assessment</td>
<td>Falls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gastroenterology</td>
<td>Percutaneous gastrostomy tubes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General medicine</td>
<td>COPD, high blood pressure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infectious diseases</td>
<td>Fever, advice on management of infections due to multi-resistant organisms</td>
<td></td>
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<tr>
<td></td>
<td>Plastic surgery</td>
<td>Wounds (Pressure injuries)</td>
<td></td>
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<tr>
<td></td>
<td>Respiratory</td>
<td>COPD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urology</td>
<td>Indwelling catheter: blocked</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vascular surgery</td>
<td>Wounds (Arterial and venous lower limb ulcers)</td>
<td></td>
</tr>
<tr>
<td>(Older Persons) Mental Health Service</td>
<td>Behavioural emergencies</td>
<td>Pain</td>
<td></td>
</tr>
<tr>
<td>Palliative care services</td>
<td>End of life</td>
<td>Pain</td>
<td>Management of residents with unstable vital signs</td>
</tr>
<tr>
<td>Public Health Unit</td>
<td>Influenza-like illness</td>
<td>Gastroenteritis</td>
<td></td>
</tr>
</tbody>
</table>
## Recognition of the deteriorating resident

Any rapid deterioration in condition should be treated with suspicion: the parameters below should not replace clinical judgement; change in residents' behaviours may also be an indication of deterioration and should prompt review of vital signs as below.

**IF YOU ARE CONCERNED ABOUT A RESIDENT CALL THE GP AND DISCUSS**

### VITAL SIGN

<table>
<thead>
<tr>
<th><strong>VITAL SIGN</strong></th>
<th><strong>RED (DANGER) =</strong> Potential life-threat, urgent medical review indicated: review #Management of residents with unstable vital signs</th>
<th><strong>YELLOW (CAUTION) =</strong> Medical review indicated</th>
<th><strong>NORMAL =</strong> Medical review as indicated by presenting complaint</th>
<th><strong>YELLOW (CAUTION) =</strong> Medical review indicated</th>
<th><strong>RED (DANGER) =</strong> Potential life-threat, urgent medical review indicated: review #Management of residents with unstable vital signs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Response and cognition</strong></td>
<td>Responsive to pain only or newly unresponsive or sudden change in mental state</td>
<td>Not alert but responsive to voice (unless this resident is normally only responsive to voice)</td>
<td>Alert (or cognition that is normal for this resident)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Respiratory rate (breaths per minute)</strong></td>
<td>Less than 6</td>
<td>6 to 9</td>
<td>10 to 24</td>
<td>25 to 30</td>
<td>More than 30</td>
</tr>
<tr>
<td><strong>Respiratory effort</strong></td>
<td>Obvious distress and / or cyanosis (despite oxygen)</td>
<td>Unusually laboured or noisy breathing</td>
<td>Typical for this resident</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pulse oximetry (oxygen saturations)</strong></td>
<td>Less than 88 per cent despite oxygen</td>
<td>88 to 91 per cent despite oxygen</td>
<td>92 to 100 per cent with or without oxygen and usual for this resident</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heart rate (beats per minute)</strong></td>
<td>Less than 40</td>
<td>40 to 49</td>
<td>50 to 100 (persistently)</td>
<td>101 to 130</td>
<td>More than 130</td>
</tr>
<tr>
<td><strong>Systolic blood pressure (systolic = top; mmHg)</strong></td>
<td>Less than 90</td>
<td>90 to 109</td>
<td>110 to 180 (or in range specified by GP for this patient)</td>
<td>181 to 200 (or higher in an otherwise well resident)</td>
<td>More than 200 with symptoms</td>
</tr>
<tr>
<td><strong>Blood glucose (mmol/L)</strong></td>
<td>Less than 4 and unresponsive to treatment</td>
<td>Persistently 4.0 to 5.9 or less than 4 and responsive to treatment</td>
<td>6 - 15 or in range specified by GP for this patient</td>
<td>Persistently more than 15 and resident well</td>
<td>Persistently more than 15 and resident unwell</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>Less than 35 degrees Celsius</td>
<td>35 to 35.5 degrees Celsius</td>
<td>35.6 to 37.7 degrees Celsius</td>
<td>37.8 to 39 degrees Celsius</td>
<td>More than 39 degrees Celsius</td>
</tr>
<tr>
<td><strong>Pain</strong></td>
<td>Clearly distressed (despite recent pain-relieving medication)</td>
<td>Obvious discomfort (despite pain-relieving medication)</td>
<td>Nil or tolerable (with or without pain-relieving medication)</td>
<td></td>
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</tbody>
</table>


This information does not replace clinical judgement.
Management of residents with unstable vital signs

Resident has unstable vital signs: review #Recognition of the deteriorating resident

1. Ensure a staff member remains with resident: apply oxygen to maintain oxygen saturations at 92 to 96 per cent (or if a history of chronic lung disease, 88 to 92 per cent) and support in position of comfort
2. Consult resident’s medical chart for Advance Care Plan or Advance Health Directive
3. If not immediately life-threatening review #Checklist for contact and ring GP

Is resident on a palliative pathway?

- YES → Consult palliative care provider**
- NO → Does resident have a documented wish to NOT BE transferred to hospital?
  - YES → GP / after-hour doctor reviews and determines appropriate management in consultation with the resident (or their substitute health decision maker)
  - NO → Refer to HHS RaSS at GP discretion

1. Call QAS on 000
2. Ring GP if not yet aware
3. Prepare transfer documentation - review #Checklist for contact
4. Notify substitute health decision maker
5. Notify HHS RaSS

** Palliative care provider is the nominated clinician over-seeing the resident’s palliative care - this may be, for example, the resident’s GP or a nominated palliative care service

This information does not replace clinical judgement
Checklist for contact of GP or RaSS

<table>
<thead>
<tr>
<th>STEP</th>
<th>ACTION</th>
<th>DONE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Collect <strong>resident’s medical record</strong> and <strong>medication chart</strong> including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Results of recent tests</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Recent changes to medications</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Substitute health decision maker contact details (e.g. enduring power of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>attorney (EPOA)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Contact details for treating GP</td>
<td></td>
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<tr>
<td>2</td>
<td>Have a copy of the relevant <strong>RACF decision support tool</strong> in front of</td>
<td></td>
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<tr>
<td></td>
<td>you</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Check the resident’s <strong>Advance Care Plan (ACP) / Advance Health Directive</strong></td>
<td></td>
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<tr>
<td></td>
<td>(AHD) for documented wishes</td>
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<td>4</td>
<td>Undertake a full set of <strong>vital signs</strong> including:</td>
<td></td>
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<tr>
<td></td>
<td>• Response and cognition</td>
<td></td>
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<tr>
<td></td>
<td>• Airway and breathing assessment (respiratory rate and effort; oxygen</td>
<td></td>
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<tr>
<td></td>
<td>saturations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Circulation assessment (pulse and blood pressure)</td>
<td></td>
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<td></td>
<td>• Disability assessment (including blood glucose)</td>
<td></td>
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<tr>
<td></td>
<td>• Temperature and pain assessment (use cognition appropriate tool)</td>
<td></td>
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<tr>
<td>5</td>
<td><strong>Pen and paper</strong> available to document any instructions</td>
<td></td>
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<tr>
<td>6</td>
<td>Prepare to discuss with GP or a RaSS in the <strong>ISBAR format</strong> Identify</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yourself, your role and where you are calling from</td>
<td></td>
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<tr>
<td></td>
<td><strong>Situation</strong> or the reason for your call and the current problem e.g.</td>
<td></td>
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<tr>
<td></td>
<td>Chest pain</td>
<td></td>
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<tr>
<td></td>
<td><strong>Background</strong> including past medical history of resident and usual</td>
<td></td>
</tr>
<tr>
<td></td>
<td>level of function</td>
<td></td>
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<tr>
<td></td>
<td><strong>Assessment</strong> including</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Vital signs</td>
<td></td>
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<tr>
<td></td>
<td>• Other relevant clinical findings including any recent behavioural</td>
<td></td>
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<tr>
<td></td>
<td>changes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Advance Care Plan wishes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Recent medication changes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Recent investigation results</td>
<td></td>
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<tr>
<td></td>
<td><strong>Recommendations</strong> arrived at in collaboration with GP or a RaSS</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>If resident is to be reviewed in facility by GP or a RaSS or to be</td>
<td></td>
</tr>
<tr>
<td></td>
<td>transferred to hospital – prepare documentation including copies of:</td>
<td></td>
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<tr>
<td></td>
<td>• Facility name and 24 hour contact details for RN or clinical manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Summary of reason for transfer and recent vital signs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Past medical history and baseline level of function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Recent medical notes, results of investigations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Recent changes to medications</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Current (regular, prn and short-course) medication AND sign-off charts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Advance Care Plan or Advance Health Directive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Contact details for next of kin and substitute health decision makers</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td><strong>Notify next of kin</strong> / substitute health decision maker of resident</td>
<td></td>
</tr>
<tr>
<td></td>
<td>condition and ensure they agree with the recommendations of GP / RaSS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– if not, notify GP or RaSS</td>
<td></td>
</tr>
</tbody>
</table>

This information does not replace clinical judgement
### Behavioural emergencies

**Resident displaying physically threatening behaviour to self or others**

- **Is there an immediate risk to staff or to resident/s safety from violent behaviour?**
  - **YES**
    - Call QAS on 000 and implement immediate management strategies (review practice point 1) and notify substitute health decision maker and **HHS RaSS**
  - **NO**
    - **STABLE VITALS**
      - **Is there evidence of delirium or is there an identifiable physical cause?** (review practice point 3)
        - **YES**
          - Refer to #New or worsened confusion pathway
        - **NO**
          - **PAIN PRESENT**
            - Administer analgesia and refer to #Pain management pathway and monitor behaviour
          - **NO PAIN**
            - Undertake cognition-appropriate pain assessment (review appendix 1)
  - **UNSTABLE VITALS**
    - Refer to #Management of residents with unstable vital signs

- **UNSTABLE VITALS**
  - **ESTABLISHED DEMENTIA DIAGNOSIS / COGNITIVE DECLINE**
  - **SUSPECTED MENTAL ILLNESS**
  - **UNCLEAR**
  - **ONGOING BEHAVIOURAL CHALLENGES**

**NOTE:**

- Provided for information only - Contact HIU@health.qld.gov.au

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*This information does not replace clinical judgement*
### Behavioural emergencies practice points [1-4]

#### (1) Immediate management strategies

1. **Reduce risk:**
   - Remove other residents from danger
   - Remove potentially harmful objects if safe to do so
   - Remove distractions
   - Stand back from the resident

2. **Verbal de-escalation:**
   - Use a calm voice with a respectful tone and a slow, even speed
   - Use eye contact consistent with the person's cultural needs
   - Use the resident's name
   - Use simple sentences without patronising
   - Encourage resident to talk about what they are feeling
   - Communicate empathy
   - Enter the person's reality, do not argue

3. **Distraction and redirection:**
   - Options include redirecting to an object or past activity of interest; changing the subject

#### (2) Supportive care

1. **Orientation**
2. **Family / volunteer** involvement where appropriate; where indicated, utilise a nursing special
3. **Adequate nutrition and hydration**
4. **Regular mobilisation** as tolerated
5. **Support of a normal sleep-wake cycle**
6. **Ensure availability of hearing aids / glasses** as indicated
7. **Provide explanation and reassurance** to resident to counteract fear
8. **Provision of meaningful activity**

#### (3) PIECES framework for assessment

- **P - PHYSICAL:**
  1. Pain - use cognition appropriate pain tool
  2. Urinary retention / constipation
  3. New injury - recent falls?
  4. Wound / skin tear
  5. Polypharmacy: community pharmacist review
  6. Infections
  7. Delirium: perform *Confusion Assessment Method (CAM)*

- **I - INTELLECTUAL:**
  1. Memory, visual perception and cognition assessment

- **E - EMOTIONAL:**
  1. Are there neurovegetative signs of depression?
  2. Undertake a Neuropsychiatric Inventory
  3. Grief or Loss?

- **C - CAPABILITY:**
  1. Undertake a capability assessment
  2. Support maximising of capabilities and
  3. Provide meaningful activities

- **E - ENVIRONMENTAL:**
  1. Orientation prompts
  2. Assess for and remove environmental / situational triggers: startle response to noise of door shutting; meal-times; showering
  3. Change to environment or routine

#### (4) Pharmacologic approaches

1. **Review prior history** and determine whether there have been previously effective management strategies utilised
2. **Review EXISTING MEDICATIONS** for contributors to behavioural disturbance:
   - Anticholinergics e.g. oxybutynin, ranitidine, promethazine / anti-epileptics / Levo-dopa and dopamine agonists / Opioids / psychotropics / corticosteroids / antibiotics / antivirals
3. **NON-PHARMACOLOGICAL METHODS** should be tried unless immediate threat of harm
4. **EFFECTIVENESS OF MEDICATIONS IN BEHAVIOURAL DISTURBANCE IN DEMENTIA IS LOW** and there is increased risk of mortality in those treated pharmacologically

If non-pharmacological methods exhausted, consider in consultation with GP and substitute health decision maker for resident:
- **Risperidone commence at 0.25mg - 0.5mg / day, gradually increasing if needed to maximum 2mg / day (divided doses)** OR
- **Olanzapine 2.5mg daily** OR
- **Can trial oxazepam e.g. 7.5mg orally once to three times daily (CAUTION: HIGH FALLS RISK)**

#### (5) Behavioural emergency resources

- **HHS relevant services:** [HHS older persons mental health services or dementia outreach services](#)
- **Dementia support Australia (Dementia Behaviour Management Advisory Service and Severe Behavioural Response Teams)** - 1800 699 799
- **Dementia Training Australia resources including Dementia Training Australia Quick Reference Cards available at:** [https://www.dementiatrainingaustralia.com.au](https://www.dementiatrainingaustralia.com.au)
- **Behaviour Management: a guide to good practice 2012. Dementia Collaborative Research Centre**

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*This information does not replace clinical judgement*
Cellulitis

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP

UNSTABLE VITALS

Refer to #Management of residents with unstable vital signs

STABLE VITALS

Is there any risk feature/s:
- Fevers
- Rigors (uncontrollable shivering)
- Associated diabetic ulcer or deep wound
- Significant comorbidity requiring stabilisation
- Altered mental status (different mental state to usual)
- Vomiting
- Involves face or orbits
- Lymphangitis (erythema tracking up limb)

1. Confirm patient meets diagnostic criteria for cellulitis (review practice points 1 and 2)
2. Mark margin of cellulitis with skin marker
3. Swab exudate if ulcerating cellulitis with discharge and send for m/c/s
4. Other investigations as indicated
5. Strict elevation of cellulitic limb (caution if resident is cognitively impaired)
6. Oral antibiotics guided by allergies and prior sensitivities (review practice point 3)
7. If associated wound review Therapeutic Guidelines for further management advice

Refer to HHS RaSS at GP discretion

Does the resident develop risk features or systemic symptoms or fail to respond to oral antibiotics within 72 hours?

NO

YES

Continue oral antibiotics for 5 days in uncomplicated cellulitis (extend treatment if infection not improved in this time) and review and treat risk factors for cellulitis (review practice point 4)
Cellulitis practice points [5-7]

(1) Diagnostic criteria for cellulitis

1. Skin almost always hot, shiny, bright red with a well demarcated edge that spreads if left untreated
2. Often painful to touch
3. In severe disease may be associated with vesicles / bullae

(2) When to consider alternate diagnoses

1. Cellulitis of the lower limbs is usually unilateral - bilateral cellulitis is RARE - if bilateral findings are present consider alternate diagnoses including:
   - oedema (with or without blisters)
   - deep venous thrombosis (DVT)
   - chronic venous insufficiency or venous eczema
   - liposclerosis
   - vasculitis
2. Chronic venous insufficiency involves localised or diffuse involvement of the gaiter area; erythema with dry, scaly or weepy skin; brown discolouration of skin common; if erythema present, it has a diffuse edge
3. Presence of unilateral vesicular eruptions and pain requires consideration of Herpes zoster or shingles; early recognition and institution of antiviral therapy (e.g. acyclovir) may reduce incidence of post-herpetic neuralgia and improve time to resolution. Erysipelas (due to group A streptococci) may sometimes also be accompanied by vesicles, though it is differentiated from Herpes zoster by larger vesicles and bullae, often with haemorrhage, and lack of dermatomal distribution
4. Presence of pruritus should prompt consideration of presence of underlying scabies

(3) Antibiotic selection in cellulitis: Consider allergies, organism sensitivities and comorbidities; consult Therapeutic guidelines if cellulitis is associated with a wound

1. If no penicillin allergy and no known MRSA:
   Use Dicloxacillin or Flucloxacillin 500mg orally 6 hourly for 5 days
2. If non-immediate penicillin allergy and no known MRSA:
   Use Cefalexin 500mg orally 6 hourly for 5 days
3. If immediate (i.e. anaphylactic) penicillin allergy:
   Use Clindamycin 450mg orally 8 hourly for 5 days
4. If known MRSA colonisation / infection:
   If known to be clindamycin-susceptible, use Clindamycin 450mg orally 8 hourly for 5 days; otherwise, use trimethoprim+sulfamethoxazole 160 + 800mg orally 12 hourly for 5 days

(4) Risk factors for cellulitis - prevention of recurrent cellulitis

Management of risk factors for cellulitis:

1. Examine interdigital toe spaces and treat fissuring, scaling or tinea pedis
2. Treat limb oedema
3. If chronic venous insufficiency, consider use of compression stockings (review #Venous Leg Ulcer Flow Chart - appendix 4)
4. Manage wounds or pressure injuries
5. Improve glycaemic control in diabetes
6. Treat nutritional deficiency, with particular emphasis on adequate protein intake in those with normal renal function and adequate micronutrient intake through a balanced diet

Maintain skin integrity:

1. Optimise mobility and minimise falls risk, particularly through removal of environmental trip or injury hazards, use of an appropriate mobility support aid, attention to bowel and / or bladder incontinence
2. Regular pressure area care for non-ambulant residents
3. Ensure good hygiene and regular use of moisturiser

IF above factors addressed and recurrent cellulitis continues to occur (3 to 4 episodes per year) then consider use of prophylactic antibiotics in consultation with an infectious diseases specialist.

This information does not replace clinical judgement
Chest pain

Resident with chest pain

Check vital signs (review #Recognition of the deteriorating resident)

STABLE VITALS

UNSTABLE VITALS

Refer to #Management of residents with unstable vital signs

UNSTABLE VITALS OR ONGOING CHEST PAIN

Review #Checklist for contact and ring GP

With GP: Does resident have an alternate identifiable cause other than cardiac ischemia? (review practice point 1)

YES

NO ALTERNATE CAUSE FOR CHEST PAIN IDENTIFIED

1. If resident has an existing individualised management plan for angina enact this now
2. Reassess vital signs and reassure resident
3. If oxygen saturations are < 95 per cent apply oxygen at 6L/min by Hudson mask (unless on home oxygen - then aim for saturations of 88 to 92 per cent)
4. If stable vital signs sit or lay patient down - if pain persists after 5 minutes, with GP ensure no contraindications to Glyceryl Trinitrate (GTN) (review practice point 2), check expiry date of GTN and then administer GTN sublingually (300 micrograms = ½ tablet or one 400 micrograms spray)
5. If pain not resolved in 5 minutes repeat vital signs and if remain stable give further GTN dose
6. If not contra-indicated administer aspirin 300mg orally (review practice point 2)
7. Reassess for ongoing pain and repeat vital sign assessment

CHEST PAIN RESOLVED AND VITAL SIGNS STABLE

GP and RACF to provide:
1. Ongoing monitoring;
2. Where consistent with goals of care, review and treat precipitants of angina (review practice point 3);
3. Falls risk assessment and management plan including increased supervision of mobilisation: beware increased falls risk after GTN administration

Treat alternate cause as indicated or if cause requires hospital care refer to #Management of residents with unstable vital signs

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Chest pain practice points [8-11]

(1) Alternate causes for chest pain
NB. careful assessment is indicated for all chest pain; cardiac ischemia may present atypically in older persons and the pain may meet any of the below descriptors of alternate causes for chest pain

CHEST pain that has pleuritic nature (worse on inspiration):
- Pulmonary embolism (PE) - consider if associated shortness of breath / hemoptysis / risks for PE
- Pneumonia - consider if febrile / productive sputum
- Pneumothorax - consider if recent fall / trauma or history of underlying pulmonary disease

CHEST pain that has sharp, tearing nature and is maximal at onset:
- Aortic dissection

CHEST pain that is worse on lying down, relieved on leaning forward:
- Pericarditis

CHEST pain that is reproduced on palpation or on movement:
- Musculoskeletal causes eg. rib fracture

CHEST pain that is burning and retrosternal
- may be due to gastroesophageal reflux; however, cardiac pain may also be described in these terms

(2) Contraindications to GTN or aspirin

GTN is contraindicated if:
1. Systolic (top) blood pressure is < 110mmHg
2. Severe anemia (Hemoglobin or Hb < 80)
3. Severe aortic stenosis or obstructive cardiomyopathy
4. Sildenafil citrate (“Viagra”) or analogues administered in previous 24 hours
5. Known hypersensitivity to GTN

Aspirin contraindicated if:
1. Known hypersensitivity or allergy to aspirin or non-steroidal anti-inflammatory drugs
2. Aspirin sensitive asthma
3. Severe active bleeding

(3) Precipitants of angina

1. Acute coronary syndrome - suspect particularly if pain onset at rest or ongoing chest pain or acceleration of chest pain symptoms (unstable angina)
2. Exacerbations of chronic co-morbid conditions e.g. chronic obstructive pulmonary disease (COPD)
3. Development of an acute medical illness e.g. sepsis, anaemia, arrhythmias, hypertensive urgencies, thyrotoxicosis
4. Progression of valvular heart disease
5. Medications that precipitate tachycardia (e.g. anticholinergic medications)

(4) Chest pain resources

- HHS cardiology services
- Heart Foundation clinical guidelines

This information does not replace clinical judgement
Chronic obstructive pulmonary disease (COPD)

1. Sit resident upright in position of comfort
2. Check vital signs (review #Recognition of the deteriorating resident)
3. If not immediately life-threatening review #Checklist for contact and ring GP

UNSTABLE VITALS or new drowsiness or vomiting

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

INCREASED SHORTNESS OF BREATH OR WORSENING SYMPTOMS OR UNSTABLE VITAL SIGNS

With GP input commence:
1. **2.5mg to 5mg nebulised salbutamol** and then continue salbutamol regularly as per GP order - nebulised salbutamol is ideally delivered using compressed air rather than oxygen - this allows simultaneous delivery of controlled oxygen by nasal prongs where required (review point 4 below)
2. If GP identifies any of:
   - **New more purulent sputum with increased breathlessness**
   - **Clinical signs of pneumonia**
   then commence either (check allergies prior):
   - **Amoxicillin** 500mg orally every 8 hours for 5 days OR
   - **Doxycycline** 200mg orally for first dose and then 100mg orally once daily for 5 days
3. GP to consider **prednisone** 30mg to 50mg daily for 5 to 7 days unless contraindicated
4. Maintain **oxygen** saturations at 88 to 92 per cent (note: oxygen therapy should be controlled - usually 0.5L to 2.0L/minute via nasal prongs titrated to support oxygen saturations of 88 to 92 per cent in order to reduce death rates)
5. **Monitor** for increased shortness of breath or worsening symptoms or unstable vital signs (particularly for evidence of increasing drowsiness, oxygen saturations < 88 per cent despite supplemental oxygen or evidence of an increasing oxygen requirement)

Does resident have a COPD action plan?

YES

Follow COPD action plan and liaise with GP

NO

Consider alternate cause for symptoms

Does resident have clinical features of an acute exacerbation of COPD? (review practice point 1)

STABLE VITALS and no drowsiness or vomiting

NO

Does resident have a COPD action plan?

YES

Follow COPD action plan and liaise with GP

NO

Consider alternate cause for symptoms

Resident with COPD and increased shortness of breath

This information does not replace clinical judgement
## Chronic obstructive pulmonary disease (COPD) practice points [12-15]

### (1) Criteria to diagnose exacerbations of COPD

**Diagnosis of an exacerbation of COPD is clinical and NICE guidelines define this as:**

“A sustained worsening of the patient’s symptoms from their usual state that is beyond normal day-to-day variations and is acute in onset”.

Commonly reported symptoms are:

1. **Worsening breathlessness**
2. **Increased cough**
3. **Increased sputum production**
4. **Change in sputum colour**

Sending sputum samples for culture is not recommended in routine practice.

Pulse oximetry is of value if there are clinical features of an acute exacerbation.

### (2) Pharmacologic management of exacerbations of COPD

1. **Increased doses of short-acting bronchodilators:**
   
   In residents of aged care facilities, nebulised salbutamol may be more useful than hand-held delivery systems particularly in cognitively impaired.

   **Nebuliser should be driven by compressed air not oxygen (with supplemental oxygen given by nasal prongs simultaneously if required)**

2. **Steroids:**

   In the absence of significant contraindications, oral corticosteroids should be considered in those with an exacerbation with a significant increase in breathlessness which interferes with daily activities; prednisone 30mg to 50mg orally once daily should be prescribed for 5 to 7 days - there is no benefit in steroid therapy beyond 14 days.

3. **Antibiotics:**

   Commence antibiotics if either of:
   - **NEW more purulent sputum with increased breathlessness or**
   - Clinical signs of pneumonia

   In the absence of the above symptoms there is no indication for antibiotics for COPD exacerbations.

4. **Oxygen:**

   Controlled oxygen therapy is associated with a significant reduction in mortality when compared with high-flow oxygen in acute exacerbations of COPD.

   **Influenza and pneumococcal vaccination when well, reduce hospital admissions in this cohort**

### (3) Oxygen in residents with COPD

If delivered inappropriately may cause respiratory depression. CONTROLLED oxygen delivery (0.5 - 2.0L/minute via nasal prongs) is indicated for acute hypoxemia (O₂ saturations < 88 - 92 per cent) in residents with exacerbations of COPD.

### (4) COPD resources

- For residents with frequent exacerbations consider referral to Respiratory or General Medicine outpatients of HHS - review **HHS specific OPD referral guidelines**
- Respiratory therapeutic guidelines v5, 2015

*This information does not replace clinical judgement*
**Congestive cardiac failure (CCF)**

**Resident with suspected CCF**

1. Sit resident upright in position of comfort and apply oxygen to maintain oxygen saturations at 92 to 96 per cent (if history of COPD or chronic lung disease aim for 88 to 92 per cent)
2. Check vital signs (review #Recognition of the deteriorating resident)
3. If not immediately life-threatening review #Checklist for contact and ring GP

**UNSTABLE VITALS**

- Review Advance Care Plan and refer to #Management of residents with unstable vital signs

**STABLE VITALS**

1. Review and treat underlying causes (review practice point 1)
2. Pharmacologic therapy (review practice point 2)
   - If clinical evidence of fluid overload, consider starting, or if existing, increasing diuretic therapy - usually frusemide in initial instance
   - If significantly hypertensive with pulmonary oedema, consider GTN sublingually
3. Treat chest pain - refer to #Chest pain
4. Non-pharmacologic management (review practice point 3)

**SYMPTOMS SETTLE AND CLINICAL SIGNS OF HEART FAILURE RESOLVE?**

- **YES**
  - RACE and GP to institute guidelines for preventing exacerbations CCF (review practice points 2 and 3)
- **NO**
  - Refer to HHS RaSS at GP discretion

*Suspect CCF in residents who have any of the following symptoms or examination findings, where no alternate more likely cause is identified:
1. Progressive exertional dyspnoea or shortness of breath
2. Orthopnoea or resident props self up on a number of pillows to sleep
3. Paroxysmal nocturnal dyspnoea or sudden shortness of breath during sleep
4. Dry irritating cough that may occur particularly at night, where there is no other cause identified
5. Progressive abdominal distension or ankle swelling
6. An elevated jugular venous pressure
7. Bilateral inspiratory crackles on chest auscultation (note wheeze may predominate)
Congestive cardiac failure (CCF) practice points [16-19]

(1) Common underlying causes of CCF

1. High blood pressure
2. Acute myocardial ischaemia (angina or myocardial infarction) - if chest pain present, refer to chest pain pathway
3. Medication-induced causes - cease contributing medications where possible e.g. calcium channel blockers (e.g. verapamil or diltiazem); corticosteroids; NSAIDs; urinary alkalinisers
4. Arrhythmias - suspect if new significant tachycardia, bradycardia or new irregular pulse rate
5. Hyperthyroidism or hypothyroidism - check thyroid function tests
6. Underlying infection
7. Severe anaemia - check full blood count
8. Acute valvular dysfunction

(2) Pharmacologic management of residents with exacerbations of CCF

1. Review and treat underlying precipitants (review above)
2. Diuretic therapy indicated for fluid overload symptom control:
   • early commencement in acute exacerbations of CCF associated with improved outcomes
   • individualise dose to patient status, history of renal impairment and usual maintenance dose of loop diuretic
   • if acutely short of breath then intravenous (IV) diuretics may be superior to oral; if shortness of breath subacute then oral diuretics may be suitable
   • unless contraindicated, consider commencement of frusemide at 20mg to 40mg daily (in acute setting, if already on maintenance dose of frusemide, usually require a dose equal to or double to the usual maintenance dose)
   • if IV frusemide utilised - if good symptomatic response within 60 minutes switch to oral dosing; if no response, consider repeat IV dose
   • monitor potassium and creatinine - check within 24 hours of initiation of therapy and then weekly during titration of diuretic
3. If significantly hypertensive with pulmonary oedema, consider use of GTN
4. Treat chest pain - refer to #Chest pain
5. When stable and no longer acutely unwell, distinguish between heart failure with impaired left ventricular function (systolic heart failure) and heart failure with preserved ejection fraction (or diastolic heart failure). Residents are likely to have systolic dysfunction if there is:
   a. Echocardiography demonstrating reduced left ventricular ejection fraction within the last 5 years
   b. Past history of myocardial infarction (documented history or multiple significant Q waves)
   c. Gallop heart sounds and displaced apex beat
   d. Marked cardiomegaly on CXR

In residents with systolic dysfunction, when clinically stable and euvoletic, consider addition of:
   a. Angiotensin converting enzyme (ACE) inhibitor or angiotensin II receptor blocker (ARB) - check serum potassium etc.
   b. Beta-blockers if evidence of left ventricular failure

Note: Beta-blockers are relatively contraindicated in acute phase if still in overt heart failure

(3) Non-pharmacologic management of residents with CCF

Monitor:
1. Daily weighs - notify GP if 2kg or more weight gain over 1 to 2 days
2. Postural drop in blood pressure - institute falls risk management plan
3. Monitor fluid intake - where indicated, restrict to 1.5L per day (caution in summer)
4. Restrict salt intake
5. Establish Advance Care Plan

This information does not replace clinical judgement
This information does not replace clinical judgement

**Constipation**

**Resident with suspected constipation**
1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP
3. Review for risk features (review practice point 1)

**STABLE VITALS**
1. Assess for and treat underlying cause (review practice point 2)
2. Review for causative drugs and cease where possible (review practice point 3)
3. Review bowel chart
4. Ensure:
   - Implementation of non-pharmacological strategies (review practice point 4)
   - Implementation of initial or maintenance pharmacological strategies (review practice point 5)

**UNSTABLE VITALS or RISK FEATURES**
Refer to #Management of resident with unstable vital signs

**BLOOD OR MASS IN RECTUM?**
- Is constipation ongoing or present already for 3 days?
  - If yes, perform gentle digital rectal examination (credentialed practitioners only)

**SOFT STOOL IN RECTUM?**
1. If no evidence of intestinal obstruction or heart failure trial an osmotic laxative: Microlax enema PR or
   - If immobile, 1-2 sachets Movicol orally daily, each in 125mL water (care in cardiovascular disease) or
   - If well-hydrated, sorbitol liquid 20mL orally once daily increasing if required to three times a day or
   - Lactulose 15mL to 30mL orally once to twice daily
2. If no response, add stimulant laxative (contraindicated in active inflammatory bowel disease or diverticulitis):
   - Coloxyl and senna tablets orally twice daily or
   - Bisacodyl enema

**HARD STOOL IN RECTUM?**
1. If no evidence of intestinal obstruction or heart failure, trial one of:
   - Glycerol suppository 2.8g PR - allow to remain insitu for 15-30 minutes
   - Movicol - up to 8 sachets in severe impaction (dissolved in 1L of water and consumed orally within 6 hours) daily for up to 3 days
2. If no response, add stimulant laxative (contraindicated in active inflammatory bowel disease or diverticulitis):
   - Coloxyl and senna tablets orally twice daily or
   - Bisacodyl enema

**RESPONDS**
- Initiate maintenance management (review practice points 4 and 5)
- Reassess response

**NO RESPONSE**
- Refer to HHS RaSS at GP discretion
### Constipation practice points [20-22]

<table>
<thead>
<tr>
<th>(1) Risk features in constipation</th>
<th>(2) Causes of constipation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron deficiency anemia</td>
<td>Mechanical obstruction - ongoing vomiting and abdominal pain</td>
</tr>
<tr>
<td>Vomiting and abdominal pain</td>
<td>Faecal impaction</td>
</tr>
<tr>
<td>Rectal bleeding</td>
<td>Dehydration</td>
</tr>
<tr>
<td>Rectal prolapse</td>
<td>Endocrine / metabolic disorders eg. hypothyroidism, chronic kidney disease, diabetes, electrolyte disturbance e.g. hypercalcaemia, hypokalemia</td>
</tr>
<tr>
<td>Weight loss</td>
<td>Neurologic disorders eg. Spinal cord pathology, Parkinson’s disease, autonomic neuropathy, dementia, depression</td>
</tr>
<tr>
<td>Lower back pain that is new or worsening</td>
<td>Gastrointestinal and local painful conditions eg. anal fissure, abscess, haemorrhoids, rectal prolapse</td>
</tr>
<tr>
<td></td>
<td>Dietary eg. reduced oral intake, fluid depletion, low fibre diet</td>
</tr>
</tbody>
</table>

### (3) Drugs causing constipation

- Aluminium or calcium-containing antacids
- Anticholinergics eg. tricyclic antidepressants, some antiparkinsonian drugs, antipsychotics, antispasmodics, antihistamines
- Calcium supplements
- Calcium-channel blockers
- Diuretics
- Iron supplements
- Non-steroidal anti-inflammatory agents (NSAIDs)
- Opioid analgesics

### (4) Non-pharmacological management

In all residents ensure:
- Adequate fluid intake
- Adequate dietary fibre intake
- Toilet each morning and thirty minutes after meals or after a hot drink when gastrocolic reflex is maximal
- Increase exercise if able
- Improve access to toilet facilities: ensure privacy and comfort; mobility assistance

### (5) Pharmacological management

There is limited evidence related to use of laxatives in older persons. Consider the following:

- Mobile residents with low-fibre diet: increase dietary fibre or add bulk forming laxatives - note: contraindicated in intestinal obstruction / faecal impaction / colonic atony; avoid in immobile or fluid restricted residents
- Immobile residents: sorbitol 15mL-30mL once daily
- Opioid-induced constipation: coloxyl with senna 1-2 tablets regularly at bedtime (up to 4 tablets/day) - note: contraindicated in active inflammatory bowel disease or diverticulitis
- For palliative care residents prescribed opioid analgesia, consider methylnaltrexone - for dosing review Australian Medicines Handbook
- Avoid long-term use of stimulant laxatives
Deep venous thrombosis (DVT)

Resident with suspected DVT*

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP

If unstable vital signs
Refer to #Management of resident with unstable vital signs

On GP assessment, does the resident have a high or low probability of DVT? (review practice point 1)

HIGH PROBABILITY

1. GP to arrange a doppler ultrasound
2. If delay to doppler, GP to consider therapeutic enoxaparin (clexane) if no contraindications: 1mg/kg (round down to nearest 10mg) subcutaneously twice daily to a maximum of 100mg bd; if Creatinine Clearance is less than 30mL/min - enoxaparin is relatively contraindicated - consider consultation with HHS RaSS at GP discretion
3. If enoxaparin commenced, doppler may be undertaken within 24 to 48 hours

DOPPLER NEGATIVE

Investigate for alternate causes of symptoms if indicated; if no alternate cause determined consider repeat doppler ultrasound in 1 week

DOPPLER POSITIVE OR UNABLE TO OBTAIN PRIVATE DOPPLER WITHIN CLINICALLY APPROPRIATE TIME FRAME

LOW or MODERATE PROBABILITY

Perform a sensitive d-dimer test

POSITIVE

Refer to HHS RaSS at GP discretion

NEGATIVE

Consider alternate cause for symptoms

* Suspect DVT in residents who have any of the following symptoms or examination findings, where no alternate more likely cause is identified:
1. Unilateral swelling of the entire leg
2. Difference in calf circumference of > 3cm between left and right leg
3. Unilateral pitting lower limb oedema
4. Pain and tenderness along the course of major lower limb veins
5. Dilated superficial veins of the involved lower limb

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### Deep venous thrombosis (DVT) practice points [23-25]

#### (1) Assessing probability of DVT (modified Well’s criteria)

<table>
<thead>
<tr>
<th>CLINICAL FEATURE</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenderness along entire deep vein system</td>
<td>+1</td>
</tr>
<tr>
<td>Swelling of entire leg</td>
<td>+1</td>
</tr>
<tr>
<td>Affected calf at least 3cm larger in circumference than non-affected calf</td>
<td>+1</td>
</tr>
<tr>
<td>Pitting oedema (confined to affected leg)</td>
<td>+1</td>
</tr>
<tr>
<td>Collateral superficial veins (non-varicose)</td>
<td>+1</td>
</tr>
</tbody>
</table>

#### RISK FACTORS PRESENT

<table>
<thead>
<tr>
<th>RISK FACTORS PRESENT</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active cancer</td>
<td>+1</td>
</tr>
<tr>
<td>Prolonged immobility or paralysis or recent plaster immobilisation of lower extremities</td>
<td>+1</td>
</tr>
<tr>
<td>Recently bedridden for 3 days or more or major surgery within previous 12 weeks requiring general or regional anaesthesia</td>
<td>+1</td>
</tr>
<tr>
<td>Previously documented DVT</td>
<td>+1</td>
</tr>
<tr>
<td>Alternative diagnosis at least as likely as DVT</td>
<td>-2</td>
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</table>

#### INTERPRETATION:

IF TOTAL SCORE IS:

- > 2 = High probability (80 per cent) of DVT
- 1 - 2 = Moderate probability (33 per cent) of DVT
- < 1 = Low probability (5 per cent) of DVT

#### (2) DVT resources

- Private radiology providers may accept GP referrals of RACF residents for doppler ultrasound
- Please contact your local private radiology provider to confirm and if resident requires ambulance transfer, please confirm that they have the ability to accept stretcher patients prior to transfer AND that doppler ultrasound is available within a clinically appropriate time frame
- Your local **HHS RaSS** may be able to advise on potential avenues to access doppler ultrasound services

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This information does not replace clinical judgement
End of life management
Please utilise in conjunction with Queensland Government Residential Aged Care End of Life Care Pathway (RAC EoLCP)

Resident suspected to be in terminal phase of life

1. Review signs and symptoms associated with terminal phase of life (review practice point 1)
2. If not immediately life-threatening review #Checklist for contact and ring GP

3 or more signs and symptoms associated with terminal phase of life are present?

YES

Consider cause for symptoms and refer to appropriate clinical pathway

NO

Refer to

HHS community palliative care service
or
HHS RaSS
at GP discretion

NOT ALL AGREE

Obtain opinions of ALL of the following in relation to commencement of RAC EoLCP:
1. Resident (if resident does not have capacity to make decisions consult residents Advance Care Plan or Advance Health Directive)
2. If the resident agrees (or if lacks capacity to make decisions) involve residents substitute health decision maker
3. GP
4. RACF clinical staff and multidisciplinary team

ALL AGREE

1. Commence on RAC EoLCP (review appendix 2)
2. GP nominates palliative care provider and documents updated Advance Care Plan in consultation with resident or substitute health decision maker

GP and RACF staff provide ongoing palliative care +/- referral to
HHS community palliative care service
at GP discretion (review practice point 2); if palliative care unable to review resident in an appropriate time frame and GP requests second opinion, refer to
HHS RaSS

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End of life management practice points [26]

<table>
<thead>
<tr>
<th>(1) Signs and symptoms associated with terminal phase of life</th>
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<tbody>
<tr>
<td>If 3 or more of the below signs and symptoms are present, <strong>AND</strong> the GP, multidisciplinary team and resident (or their substitute health decision maker) <strong>ALL</strong> agree, it is appropriate to commence the End Of Life Pathway (RAC EoLP):</td>
</tr>
<tr>
<td>1. Experiencing rapid day to day deterioration that is not reversible</td>
</tr>
<tr>
<td>2. Requiring more frequent interventions</td>
</tr>
<tr>
<td>3. Becoming semi-conscious, with lapses into unconsciousness</td>
</tr>
<tr>
<td>4. Increasing loss of ability to swallow</td>
</tr>
<tr>
<td>5. Refusing or unable to take food, fluids or oral medications</td>
</tr>
<tr>
<td>6. Irreversible weight loss</td>
</tr>
<tr>
<td>7. An acute event has occurred requiring revision of treatment goals</td>
</tr>
<tr>
<td>8. Profound weakness</td>
</tr>
<tr>
<td>9. Changes in breathing patterns</td>
</tr>
<tr>
<td><strong>PLEASE note:</strong> in some cases residents may be commenced on the RAC EoLCP and then taken off the pathway if their condition improves</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) Palliative care resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialist community palliative care services work in collaboration with primary care providers and often provide:</td>
</tr>
<tr>
<td>1. Visits to the resident in the RACF</td>
</tr>
<tr>
<td>2. 24 hour telephone on-call services</td>
</tr>
<tr>
<td>3. Admission to inpatient palliative care beds where indicated</td>
</tr>
</tbody>
</table>

- **HHS specific community palliative care services**

This information does not replace clinical judgement
This information does not replace clinical judgement
Falls practice points [27-30]

(1) Structured assessment of resident post-fall (please use in conjunction with Residential Care Facility Falls Assessment and Management Plan (review appendix 3))

AIM to identify:
1. Cause of fall
2. Injuries related to fall
3. Risk factors for further falls

Undertake:
1. **Check of vital signs** -
   - Oxygen saturations - hypoxia
   - Respiratory rate
   - Pulse rate - bradycardia or tachycardia
   - Blood pressure - hypotension or hypertension; if no injuries precluding, check for postural drop
   - Conscious level - Glasgow Coma Score (GCS) or Alert-Verbal-Pain-Unresponsive (AVPU)
   - Blood glucose level
   - Temperature - fever, hyperthermia or hypothermia

2. **History of fall** including:
   - Fall witnessed vs unwitnessed?
   - Resident recalls fall? Was resident unconscious?
   - Circumstances of fall: what was the resident doing? e.g. trip / slip, environmental hazard, change in posture, recent meal, urination, defecation, turning of head, cough
   - Warning symptoms before fall: pre syncope, chest pain, headache, palpitations, shortness of breath, vertigo
   - After fall: localised pain, headache, vomiting
   - Comorbidities: coagulopathy, cardiac history, Parkinson’s disease, visual impairment, osteoporosis, seizure disorder
   - Medications: on anticoagulants (eg. warfarin, dabigatran, apixaban, rivaroxaban, bivalirudin, fondaparinux) or anti-platelet (eg. aspirin, clopidogrel, prasugrel, dipyridamole) therapy, recently introduced medications, particularly those associated with postural drop (eg. antihypertensives, diuretics, autonomic blockers, antidepressants, hypnotics, anxiolytics, anagelsics, psychotropics)

3. **Examination after fall** including:
   - Head - evidence of bruising, lacerations, facial bone tenderness, clinical evidence of base of skull fracture (bruising over mastoid or around both eyes), pupil equality, nystagmus, visual or hearing impairment
   - C-spine - tenderness
   - Chest - tenderness, bruising of ribs, murmurs, arrhythmia, congestive heart failure
   - Abdomen - tenderness, bruising (don’t forget to examine flanks), tenderness of pelvic bones, organomegaly
   - Thoracolumbar spine - tenderness
   - Limbs - bony tenderness or deformity
   - Focal neurological deficits, muscle rigidity, tremor
   - Assess for delirium using Confusion Assessment Method (CAM) (review appendix 1)

   If no spine tenderness or lower limb deformity - assess for postural drop in blood pressure, and assess ability to mobilise safely with usual gait

(2) General falls prevention strategies

1. Regular environmental audits to identify falls risks
2. Consider vitamin D and calcium supplementation and arrange dietitian review for residents with falls
3. Residential Medication Management Review to identify medications that may be contributing to falls risk
4. Consider use of hip protectors, ensure safe footwear, alarm mats where indicated
5. Consider physiotherapy review to ensure appropriate mobility aid is utilised and implement physical training for balance and strength optimisation

(3) Resources for residents with falls

- **HHS falls specific services**
- QH Residential post fall clinical pathway

This information does not replace clinical judgement
Fever or suspected infection

Resident with fever / suspected infection (review practice point 1)

1. Check vital signs (review Recognition of the deteriorating resident)
2. If not immediately life-threatening review Checklist for contact and ring GP

STABLE VITALS
Clinical review by GP - source identified?

YES

UNSTABLE VITALS
Review Advance Care Plan and refer to Management of residents with unstable vital signs

SOURCE IDENTIFIED?

SOURCE NOT IDENTIFIED

Refer to HHS RaSS at GP discretion

Refer to relevant pathway:
#Urinary tract infection
#Pneumonia
#Cellulitis
#Gastroenteritis
#Influenza-like illness

1. Where consistent with resident's goals of care, arrange blood tests including: Full blood count, Urea, Electrolytes, Liver Function Tests, Blood cultures
2. Urine sent for m/c/s if:
   ACUTE ONSET OF DYSURIA (burning or stinging when passing urine)
   OR the resident has TWO or more criteria for a UTI, at least one of which is a major criterion note: if resident has an indwelling catheter or suprapubic catheter, only one criterion (major or minor) is required:
   a) Major criteria:
      • FEVER (review practice point 1)
      • ALTERED MENTAL STATE without another cause
   b) Minor criteria:
      • New or worsening URGENCY or FREQUENCY
      • SUPRAPUBIC or FLANK PAIN or tenderness
      • Gross HAEMATURIA (blood stained urine)
      • New or worsening urinary INCONTINENCE
      • RIGORS (uncontrollable shivering or shaking)
3. Where respiratory viral infection suspected, take nose and throat swabs for influenza and respiratory virus PCR
4. Where diarrhoea present, send stool sample for viral and bacterial PCR

CONTACT HIU@health.qld.gov.au

This information does not replace clinical judgement
Fever or suspected infection practice points [5, 31, 32]

(1) When to suspect infection in residents of aged care facilities

Suspect infection in residents with:

1. **Decline in functional status** as evidenced by any of:
   i. New or increasing **confusion**
   ii. New **incontinence**
   iii. **Deteriorating mobility**
2. **Reduced food intake**
3. **Change in behaviour**
4. **Fever** (where this is defined as a single oral temperature of > 38 degrees Celsius or an increase in temperature > 1.5 degrees Celsius over resident’s baseline temperature)

(2) Antibiotic selection

Prior to initiation of antibiotics, appropriate clinical specimens should be taken to assist in diagnosis and targeting of antibiotic therapy.

Antibiotic selection for infection should be guided by:

1. **Allergies** - note: in reference to hypersensitivities:
   - **Immediate hypersensitivity** refers to development of urticaria (hives), angioedema (facial/oral swelling), bronchospasm (wheeze) or anaphylaxis within 1 to 2 hours of exposure to a drug.
   - **Non-immediate hypersensitivity** refers to development of a macular, papular (raised) or morbilliform rash occurring several days after starting treatment.
2. **Prior sensitivities of organisms** in this resident if empiric therapy or by current sensitivities if directed therapy
3. **Comorbidities** with particular emphasis on:
   i. Immunosuppression eg. chronic steroid use / other immunosuppressive drugs
   ii. Renal or hepatic dysfunction - there may need to be dose adjustment
   iii. Nutritional status
   iv. Potential for drug interactions, particularly where there is polypharmacy - for example, specific risk exists in co-prescribing macrolide antibiotics (e.g. clarithromycin, erythromycin) and azole antifungals (e.g. Fluconazole, voriconazole)
4. **Antibiotic guidelines** for suspected infection source - use antibiotics suggested by relevant QH RACF pathway or
   - Therapeutic guidelines: antibiotics version 16 or
   - Review input from local referral hospital
5. Residents **ability to swallow** or tolerate oral intake

(3) Resources for residents with fever or suspected infection

- For advice on selection of antibiotics: contact your **HHS infectious diseases physicians**
Gastroenteritis

Resident with suspected gastroenteritis

1. Immediately institute strict infection control procedures and isolate resident (review practice point 1)
2. Check vital signs (review #Recognition of the deteriorating resident)
3. If not immediately life-threatening review #Checklist for contact and ring GP

UNSTABLE VITALS

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

DEVELOPS RISK FEATURES or UNSTABLE VITALS

Is there evidence of risk feature/s:
• Severe abdominal pain
• Rigors (uncontrollable shivering / shaking)
• Reduced conscious state

YES

STABLE VITALS

Is there evidence of any referral features:
• Fevers
• Blood in stools
• Acute confusion
• Significant dehydration
• Significant comorbidity requiring stabilisation e.g. unstable diabetes

YES

DEVELOPS REFERRAL FEATURES

Refer to HHS RaSS at GP discretion

NO

NO

DEVELOPS REFERRAL FEATURES

1. Confirm gastroenteritis most likely diagnosis (review practice point 2)
2. Initiate appropriate investigations (review practice point 3)
3. Refer to facility and state guidelines on management of gastroenteritis and to gastro-info kit and review public health notification criteria
4. Monitor:
   • vital signs regularly
   • fluid balance
   • comorbidities - if known diabetic monitor blood glucose levels regularly
5. Encourage oral fluids as appropriate to individual resident - if clinical evidence of dehydration consider supplemental subcutaneous fluids (review #Subcutaneous fluids and dehydration)
6. Consider antiemetics
7. Monitor for development of risk or referral features

Provided for information only - Contact HIU@health.qld.gov.au

This information does not replace clinical judgement
## Gastroenteritis practice points [33, 34]

**Gastroenteritis practice points**

### (1) Infection control procedures in gastroenteritis (refer to state and facility guidelines and Gastro-info kit for more detailed information)

1. **Reinforce hand hygiene** with staff and visitors - ensure adequate supplies of liquid soap and alcohol-based hand rub
2. **Isolate residents** who are infected - if an appropriate single room is not available, implement room sharing (cohorting) of residents with the same infection
3. Allocate **separate toilet** for infected residents and utilise **dedicated staff** where possible
4. **Monitor staff** for symptoms - remain off work for at least 48 hours after last episode of symptoms
5. **Restrict contact** between affected and unaffected residents for at least 48 hours after last symptoms
6. **Restrict visitors** - warn them of risks
7. **Increase personal protective measures** - wear gloves, gowns/plastic aprons and masks when cleaning rooms of infected residents and masks before leaving the room
8. **Clean resident environments** frequently and thoroughly with a neutral detergent and hot water prior to disinfection with 0.1 per cent bleach solution

### (2) Identification of gastroenteritis

**Suspect potential gastroenteritis if resident has one or more of the following:**

1. Diarrhoea
2. Increase of 3 or more bowel motions over an individual’s baseline
3. 2 or more episodes of vomiting
4. Nausea and abdominal pain or tenderness
5. Consider diagnosis in those with functional decline

**Consider alternate causes including:**

1. Subacute bowel obstruction
2. Faecal impaction with overflow diarrhoea
3. Faecal incontinence
4. Diarrhoea secondary to medication
5. Acute abdomen - suspect if severe abdominal pain or abdominal guarding or rigidity

**Signs of dehydration include:**

1. Reduced urine output
2. Heart rate above 110 beats per minute
3. Dry mucous membranes (mouth and tongue)
4. Reduced systolic (top) blood pressure

### (3) Investigations in gastroenteritis (consult public health for local guidelines)

1. In all residents test for bacterial AND viral PCR studies
2. In immunocompromised or those with recent hospitalisation or antibiotics add test for Clostridium difficile. Also add test for Clostridium difficile in those residents with suspected sepsis OR with negative bacterial and viral PCR studies and ongoing diarrhoea
3. If **chronic symptoms** (more than 7 days) add examination for Giardia and Cryptosporidium

### (4) Resources for residents with gastroenteritis

High blood pressure (BP)

Resident with systolic (top) blood pressure (BP) > 180 mmHg OR diastolic (bottom) BP > 110 mmHg

1. Check vital signs (review #Recognition of the deteriorating resident) and compare current BP to resident's usual BP
2. If not immediately life-threatening review #Checklist for contact and ring GP

Does the resident have any warning symptoms:
- Severe headache
- New neurological symptoms or signs / new weakness
- New onset confusion
- Acute shortness of breath
- Chest pain

STABLE VITALS

YES

NO

1. Allow resident to rest quietly
2. Ensure normal pain relief and blood pressure medications have been given
3. Undertake a pain assessment appropriate to cognition - provide analgesia if resident has pain and assess for cause of pain
4. Record blood pressure hourly for 4 hours and monitor for above warning symptoms

IMPROVES

GP and RACF manage resident; regular BP measurement to determine need for antihypertensive adjustment or if on palliative pathway cease measurement of blood pressure

DOES NOT IMPROVE

GP manages or refer to HHS RaSS at GP discretion

This information does not replace clinical judgement

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High blood pressure (BP) practice points [35-39]

(1) Residents with no symptoms and a high blood pressure

** The American College of Emergency Physicians policy for asymptomatic patients with high blood pressure states

1. In patients with no symptoms and a markedly elevated blood pressure, routine Emergency Department medical intervention is not required
2. In patients with no symptoms and a markedly elevated blood pressure, routine Emergency Department screening for acute target organ injury is not required

** There is evidence that CHRONIC control of blood pressure in the elderly reduces LONG-TERM risk of stroke and heart attack, but decision to treat and treatment goals need to be individualised and include assessment of overall goals and risk assessment for falls.

A systematic review of observational studies identified that hypertension is common in residents of aged care facilities and is commonly treated with antihypertensives; however, there was observed increasing polypharmacy, with associated risk of adverse events, without demonstrable benefit in terms of blood pressure control.

(2) Hypertensive emergencies

** There is evidence EMERGENCY DEPARTMENT PRESENTATION is indicated, if long-term goals of care are consistent with this, for hypertensive emergencies where high blood pressure is associated with any of:

1. Severe headache
2. New neurological symptoms or signs / new onset confusion
3. New weakness
4. Acute shortness of breath
5. Chest pain

(3) Resources for residents with hypertension

- **HHS specific general medicine or hypertension units**
Resident with Blood Glucose Level (BGL) of less than 4mmol/L

Is the resident conscious and co-operative?

YES

1. Give one serve of fast acting carbohydrate (review practice point 1)
2. Check vital signs (review #Recognition of the deteriorating resident)

UNSTABLE VITALS

1. Lie on side in recovery position
2. Administer 1mg IMI glucagon if available
3. Refer to #Management of residents with unstable vital signs

STABLE VITALS

Repeat BGL in 15 minutes: is BGL above 4?

BGL > 4

1. Give one serve of slow acting carbohydrate (review practice point 2)
2. Recheck BGL in 1 hour and then if > 4, hourly for 4 hours, then 4 hourly for 24 hours
3. Review #Check-list for contact and ring GP

GP and RACF manage resident (review practice point 3), refer to HHS RaSS at GP discretion if ongoing concerns

BGL < 4

Is the resident conscious and co-operative?

NO

1. Give one serve of fast acting carbohydrate (review practice point 1)
2. Administer 1mg IMI glucagon if available
3. Refer to #Management of residents with unstable vital signs

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NO

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3. Review #Check-list for contact and ring GP

GP and RACF manage resident (review practice point 3), refer to HHS RaSS at GP discretion if ongoing concerns

BGL < 4

Is the resident conscious and co-operative?

This information does not replace clinical judgement
Hypoglycaemia practice points [40, 41]

<table>
<thead>
<tr>
<th>(1) Fast-acting carbohydrates</th>
<th>(2) Slow-acting carbohydrates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal diet</strong></td>
<td><strong>Normal diet</strong></td>
</tr>
<tr>
<td>100mL Lucozade</td>
<td>250mL milk</td>
</tr>
<tr>
<td>1 serve Poly Joule</td>
<td>1 tub (200g) yoghurt</td>
</tr>
<tr>
<td>150mL Lemonade or other soft drink (not diet)</td>
<td>1 slice bread</td>
</tr>
<tr>
<td>3 teaspoons sugar dissolved in 50mL water</td>
<td>2 sweet plain biscuits</td>
</tr>
<tr>
<td>7 small or 4 large glucose jellybeans</td>
<td>1 piece fruit</td>
</tr>
<tr>
<td>150mL orange juice</td>
<td>next meal (if being served within 30 minutes)</td>
</tr>
<tr>
<td>30mL cordial (not diet) mixed with 150mL water</td>
<td></td>
</tr>
<tr>
<td><strong>Thickened diet</strong></td>
<td><strong>Thickened diet</strong></td>
</tr>
<tr>
<td>1 tube pre-prepared thickened cordial (not diet)</td>
<td>1 tub pureed fruit</td>
</tr>
<tr>
<td>3 individual serves of jam (not diet)</td>
<td>1 serve thickened milk drink</td>
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<tr>
<td><strong>PEG tube</strong></td>
<td><strong>PEG tube</strong></td>
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<tr>
<td>Via feeding tube:</td>
<td>Via feeding tube:</td>
</tr>
<tr>
<td>100mL Lucozade</td>
<td>150mL enteral feed</td>
</tr>
<tr>
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<td>30mL cordial (not diet) mixed with 150mL water</td>
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</tbody>
</table>

(3) Diabetes management after treating hypoglycaemia

GP to review diabetes management for causes of hypoglycaemia and correct avoidable causes
If cause identified and corrected (eg. missed, delayed or reduced intake), insulin dose adjustment is not required unless hypoglycaemia recurs; if reduced oral intake consider reducing mealtime insulin doses. If cause not identified or cannot be corrected, GP to consider:

i. hypoglycaemia that has occurred within 4 hours after mealtime insulin = reduce the dose of THAT mealtime insulin by 20 per cent the following day

ii. if hypoglycaemia has occurred outside of 4 hours after mealtime insulin = reduce basal insulin dose by 20 per cent

iii. if on a sulphonylurea obtain specialist advice as hypoglycaemia can be recurrent or prolonged

(4) Resources for residents with hypoglycaemia

- **HHS specific endocrinology services**
- The McKellar Guidelines for managing older people with diabetes in residential and other care settings

This information does not replace clinical judgement
Indwelling urinary catheter: preparation for insertion [42]

Resident assessed by GP as requiring IDC

GATHER REQUIRED EQUIPMENT:
1. Clean and prepare dressing trolley
2. Sterile equipment:
   • Catheter pack
   • Gloves
   • Indwelling catheter x 2 (review practice point 1 for selection of catheter)
   • Syringe of appropriate size - check IDC balloon size
   • Lignocaine jelly (or if allergy to lignocaine use KY jelly)
   • Urinary drainage bag (if required) - establish if hourly measures or free drainage required
   • Water ampoules (number required as per balloon size of IDC)
   • Aqueous chlorhexidine 0.1 per cent solution (if allergy to chlorhexidine use 0.9 per cent normal saline)
3. Clean equipment:
   • Blue-lined disposable underpad
   • Mask
   • Plastic apron
   • Protective eye-wear
   • An IDC anchoring device such as Flexi-trak

SPECIFIC PREPARATION OF THE RESIDENT:
1. Check resident identification, explain procedure to the resident
2. Position the resident comfortably (generally the optimal position is for the resident to lie supine on their back with the bed flattened, if this is able to be tolerated) AND ensure privacy

SPECIFIC PREPARATION OF EQUIPMENT AND OPERATOR:
1. Don mask and plastic apron
2. Use aseptic technique
3. Open out wrapping of the catheter pack with an aseptic technique and place on dressing trolley
4. Perform a two minute hand wash and then unwrap catheter pack. With exposed forceps prepare equipment and add extra items
5. Open unsterile outer wrapping of catheter and place sterile wrapped catheter onto sterile field
6. Squeeze sterile water into bowl ready for balloon inflation
7. Pour aqueous chlorhexidine 0.1 per cent and normal saline 0.9 per cent over cotton wool swabs
8. Open sterile glove packet and open packet containing urinary drainage bag
9. Position patient comfortably - arrange an assistant if necessary
10. Wash hands for 30 seconds and dry
11. Don sterile gloves
12. Draw up sterile water into syringe and test catheter balloon - use only the amount of water labelled on the catheter (omit if in-out catheter)
13. Apply 2mL of lignocaine gel to the catheter tip
14. Proceed to #Indwelling urinary catheter: insertion pathway

This information does not replace clinical judgement
Resident assessed by GP as requiring IDC; if replacing IDC check with GP that IDC remains indicated

**IN ALL RESIDENTS:**
1. Ensure procedure undertaken only if within scope of practice of operator
2. Review **Indwelling urinary catheter: preparation for insertion**
3. Open fenestrated drape and place over resident's genitals
4. Place cleaning tray just below resident's genitals on fenestrated drape

**IN FEMALE RESIDENTS:**
1. Ensure urethral meatus sighted
2. Swab labia majora centre, far side, near side, centre and repeat for labia minora - use a fresh swab for each stroke
3. Gently insert the syringe tip of the lignocaine jelly into the meatus, and insert remaining lubricant and anaesthetic
4. Wait 3 minutes before insertion of catheter
5. Using forceps insert tip of catheter into urethral orifice until urine flows freely
6. Insert further 3 cm and then inflate the balloon using sterile water injected into the balloon inlet of the catheter
7. Gently withdraw catheter until balloon sitting in position at the bladder base
8. If accidentally inserted into vagina - leave in situ until another catheter is positioned in bladder

**IN MALE RESIDENTS:**
1. Using folded gauze squares, with non-dominant hand hold resident's penis; retract foreskin if uncircumcised
2. Using dominant hand pick up forceps and clean penis with saline swabs from penis tip downwards, one stroke per swab; discard cleaning tray
3. Place catheter tray on fenestrated sheet; holding penis at right angles to the resident's body gently insert lignocaine gel syringe tip into urethral meatus; inject lignocaine gel into urethra and insert remaining lubricant and anaesthetic
4. Wait 3 minutes before insertion of catheter
5. Using forceps pick up catheter, ensuring drainage end is in tray and gently insert tip of catheter into urethral orifice - when resistance is felt, lower penis and gently continue insertion until Y-junction of catheter reaches the urethral meatus; NB. if unable to advance catheter with gentle pressure, abort the procedure and contact HHS RaSS. If urine flow occurs prior to reaching the Y-junction of the catheter continue to insert catheter to the Y-junction THEN inflate the catheter balloon using sterile water injected into the balloon inlet of the catheter (observe the resident for any signs of discomfort - if this causes discomfort, stop inflating balloon and ensure that catheter continues to be inserted to Y-junction - if this is confirmed, gently inflate balloon - if this recurrently causes discomfort, abort the procedure and contact the HHS RaSS). **NEVER INFLATE THE BALLOON UNTIL URINE FLOWS FREELY AND STOP IF RESIDENT EXPERIENCES PAIN**
6. When balloon inflated, gently withdraw catheter until resistance felt (balloon at bladder base)

1. Connect catheter end to drainage bag; remove fenestrated drape
2. Secure catheter to resident's leg (preferably using an appropriate anchoring device - assess and minimise tension with the patient lying, sitting and standing to minimise pressure injury risk)
3. Stabilise the drainage bag tubing with the clip provided to resident's clothing
4. In uncircumcised males, reposition the foreskin to cover the glans penis
5. Return the resident to a comfortable position
6. Wait for the catheter to finish draining before leaving the bedside

*This information does not replace clinical judgement*
Indwelling urinary catheter: insertion practice points [42, 43]

(1) Catheter selection

Lumen type:
IDCs inserted in the RACF setting are generally **double lumen catheters** (a draining lumen for draining of urine and a balloon inflation lumen)
Triple lumen or three-way catheters (with an additional lumen for irrigating) are generally not appropriate for use in the RACF setting - if a resident has a triple lumen catheter in situ please contact **HHS RaSS**

Size:
Choose the smallest catheter size that will allow appropriate drainage

**IDCs >/ = 18Fr size may increase risk of erosion of bladder neck and urethral mucosa with associated risk of stricture formation**
Selection of appropriate IDC size requires consideration of:
1. Gender: influenced also by body habitus but in general minimum IDC size in females with clear urine or mild debris is 12 Fr and in males with clear urine or mild debris is 16 Fr
2. Urine consistency: presence of moderate to heavy debris, mucous or clots may require females to have a 16 Fr and males to have a 18 Fr IDC

Type of catheter material:
If latex allergy: use 100 per cent silicone catheter
If no latex allergy: a hydrogel catheter or 100 per cent silicone catheter may be used

**There is no evidence to support routine use of antibiotic or silver impregnated catheters for long-term IDC placement**

(2) Frequency of IDC changes

***Indication*** for ongoing IDC placement should be reviewed at regular intervals to ensure that the IDC is still required***

Frequency of routine changes of indwelling catheters is controversial and should be individualised; interval to IDC change should not exceed manufacturers’ recommendations for the catheter type inserted

Consider the following in determining frequency of changes:
1. Likely duration of catheterisation and type of catheter (review manufacturer recommendations of frequency of changes)
2. Catheter function
3. Encrustation
4. Frequency of blockages
5. Comfort
6. Local policy

***An IDC should ALWAYS be changed in those with a symptomatic urinary tract infection***

(3) Preventing Catheter-Associated Urinary Tract Infection (CAUTI)

Prevention of CAUTI is best achieved by:
1. Restricting IDC use to those with an ongoing clear indication and remove as soon as clinically safe to do so
2. Aseptic technique on IDC insertion with particular attention to hand hygiene, use of sterile gloves, cleaning of the genital region and a no touch technique of the catheter
3. Avoiding breaks in the closed drainage system
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Indwelling urinary catheter - troubleshooting a blocked indwelling catheter (IDC) or suprapubic catheter (SPC)

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP if vital signs unstable

Does resident meet criteria to check for a UTI? (review practice point 1)

YES

Refer to #Urinary tract infection pathway and change IDC or SPC - if assistance required refer to HHS RaSS

UNSTABLE VITALS

Refer to #Management of residents with unstable vital signs

CATHETER DRAINING

Monitor catheter drainage; encourage fluids if clinically appropriate and record urine output

Stable Vitals

CATHETER REMAINS BLOCKED

Potential occlusion of IDC eyelets by bladder mucosa - temporarily hold drainage bag above level of bladder to release suction

CATHETER REMAINS BLOCKED

Change IDC / SPC - if assistance required refer to HHS RaSS

Resident with blocked indwelling catheter (IDC) or suprapubic catheter (SPC)

1. IDC / SPC tubing examined for kinking or clothing restricting drainage → unkink or remove clothing
2. Drainage bag - ensure it is:
   • hanging below level of bladder
   • not more than ¾ full
   • straps of bag not occluding the non-return valve
3. Urine - evidence of:
   • hematuria / debris / mucous? → attempt to relieve blockage by “milking” catheter gently along its length

Monitor catheter drainage; encourage fluids if clinically appropriate and record urine output
**Indwelling urinary catheter - troubleshooting a blocked IDC or SPC: practice points [5, 31, 32, 43-45]**

### (1) Criteria to check for a UTI

ONLY check for a UTI if the resident with a catheter has **at least one of:**

- **FEVER** (Temperature > 38 degrees Celsius or an increase of > 1.5 degrees Celsius above baseline temperature)

- **MENTAL STATUS CHANGE** without another cause

- **SUPRAPUBIC** or **FLANK PAIN** or tenderness

- **Gross HAEMATURIA** (blood stained urine)

- **RIGORS** (uncontrollable shivering or shaking)

**Urine odour and appearance are not predictive of UTI**

**Do not screen urine in asymptomatic residents** because residents in aged care facilities have high rates of abnormal dipsticks without UTI necessarily being present

**Multiple randomised trials have shown no benefit from treating asymptomatic bacteriuria**

### (2) Recurrent IDC / SPC blockage

If recurrent IDC / SPC blockages:

1. Check IDC / SPC on changing for signs of encrustation - if present check for Proteus mirabilis infection AND cease ural or urinary alkalinisers

2. Encourage fluids if clinically appropriate

3. Consider:
   - a. Increased catheter lumen size
   - b. Change to 100 per cent silicone catheter

4. Send urine for m/c/s if clinical evidence of a UTI

5. Document history of blocking - may require increased frequency of IDC / SPC change

6. If resident constipated treat as per #Constipation

### (3) IDC / SPC resources

- **HHS specific urology support services**
- Australian and New Zealand Urological Nurses Society catheter care guidelines:  

- Queensland Spinal Cord Injuries Service Fact sheet: Preventing catheter blockages: a guide for health professionals:  
Influenza-like illness (ILI)

Resident with suspected influenza-like illness (ILI)

1. Immediately institute strict infection control procedures (review practice point 1) and isolate resident
2. Check vital signs (review #Recognition of the deteriorating resident)
3. If not immediately life-threatening review #Checklist for contact AND ring GP

STABLE VITALS

Review Advance Care Plan and refer to #Management of resident with unstable vital signs

UNSTABLE VITALS

1. Collect nasopharyngeal swabs for influenza and respiratory virus PCR and if influenza confirmed, treat with oseltamivir for 5 days
   • 75mg orally twice daily;
   • If known Creatinine clearance 30mL to 60mL/minute reduce dose to 30mg twice daily; if known Creatinine clearance 10mL to 30mL/minute reduce dose to 30mg once daily; note if oseltamivir suspension not available in a timely manner, consult local public health or infectious diseases physicians for advice on dosing
2. If renal function unknown commence at 75mg orally twice daily and then dose adjust for renal function as soon as renal function results available
3. Monitor other residents for additional cases
4. Refer to national guidelines on management of influenza-like illness and notify public health of outbreaks (3 or more cases of ILI in residents or staff of facility within 3 days) (review practice point 3)
5. Monitor resident for development of risk features: difficulty breathing OR mental status changes OR significant comorbidity requiring stabilisation

NO RISK FEATURES

GP manages or refer to HHS RaSS at GP discretion

Does the resident meet diagnostic criteria for influenza? (review practice point 2)

YES

NO
Influenza-like illness (ILI) practice points [46]

(1) Infection control procedures in influenza-like illness (ILI) outbreaks
(refer to national guidelines for more detailed information - review link in practice point 3)

1. **Reinforce hand hygiene with staff and any visitors** - ensure adequate supplies of liquid soap, alcohol-based hand rub and paper-towels

2. **Respiratory hygiene and cough etiquette** - encourage residents to cover their nose and mouth when they cough or sneeze, use tissues and dispose of them into a rubbish bin, and perform hand hygiene

3. **Use personal protective equipment (PPE) when caring for infected residents** - single use surgical masks, gloves, single use aprons and eye protection, and change between residents

4. **Monitor staff for symptoms** - staff with respiratory ILI should be excluded from work while infectious. The infectious period for influenza is at least 5 days after onset of acute illness, or until they are symptom free for 24 hours, whichever is longer

5. **Isolate residents who are infected** - if an appropriate single room is not available, implement room sharing (cohorting) of residents with the same infection (laboratory confirmed or very clear case definition)

6. **Staff cohorting** - allocate dedicated staff (all of whom should be vaccinated for influenza) to the care of unwell residents isolated in rooms. These staff should not move between their section and nonisolated areas of the facility, or care for other residents

7. **Place contact and droplet precaution signs, liquid hand gel and PPE outside residents’ rooms (with a mechanism to allow for safe disposal of PPE items)** to remind staff and visitors about the requirement for strict infection control procedures - ensure visitors are shown how to use PPE appropriately

8. **Suspend group social activities in affected areas of the facility during an outbreak**

9. **Visitor restrictions during outbreaks** - non-essential visits should be discouraged. Visitors should visit only one resident (with direct entry and exit from the resident’s room and no other movements within the facility), practice good hand hygiene and use PPE as appropriate. Visitors with respiratory symptoms are not to visit while unwell

10. **Clean resident environments frequently** with a neutral detergent followed by a disinfection solution (TGA-registered hospital grade disinfectant or 1000 ppm sodium hypochlorite)

(2) Identification of influenza-like illness (ILI)

**SUSPECT ILI IF THE RESIDENT HAS:**

1. Sudden onset of symptoms (in the elderly these may be atypical and include anorexia, mental status changes or worsening of underlying chronic obstructive lung disease or cardiac failure)

   AND

2. At least one respiratory symptom (new or worsened cough OR sore throat OR shortness of breath)

   AND

3. At least one systemic symptom (fever OR malaise OR headache OR myalgia)

(3) Influenza resources


*This information does not replace clinical judgement*
New or worsened confusion

Resident with new confusion or altered mental state

Is there an immediate risk to staff or to resident/s safety from violent behaviour?

- YES
  - Call QAS on 000 and then refer to #Behavioural emergencies pathway

- NO
  - 1. Check vital signs (review #Recognition of the deteriorating resident)
  - 2. If not immediately life-threatening review #Checklist for contact and ring GP
  - 3. Initiate supportive care (review practice point 1)

Stable Vital Signs

- CAM NEGATIVE
  - Undertake systematic assessment including blood tests for cause of delirium (review practice point 3)
  - 1. Consider alternate causes (review practice point 2) - may still represent sub-clinical delirium
  - 2. Monitor vital signs including conscious level and neurological observations every:
    - i. 15 minutes for 1 hour then
    - ii. 30 minutes for 2 hours then
    - iii. 1 hour for 8 hours then
    - iv. 2 hours for 6 hours then
    - v. 4 hours for 8 hours then
    - vi. 6 hours for 24 hours OR as per medical order

- CAM POSITIVE
  - Cause identified and treatable
    - GP and RACF manage cause of delirium - refer to relevant clinical pathway
  - Cause not identified or not within scope of GP / RACF to treat

Unstable Vital Signs

- Refer to #Management of residents with unstable vital signs

- Refer to #Management of residents with unstable vital signs

- Ongoing concern, Vital Signs Stable
  - Refer to HHS RaSS at GP discretion

This information does not replace clinical judgement
New or worsened confusion practice points [47-51]

(1) Supportive care

1. **Orientation** prompts
2. **Family / volunteer** involvement
3. Adequate **nutrition and hydration**
4. Regular **mobilisation** as tolerated
5. Support of a normal **sleep-wake cycle**
6. Ensure availability of **hearing aids / glasses** as indicated
7. Provide **explanation and reassurance** to resident to counteract fear
8. Provision of **meaningful activity**

(2) Causes for acute confusion

<table>
<thead>
<tr>
<th>Cardiac</th>
<th>Myocardial infarction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>Change in environment or staffing, physical restraint</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Faecal impaction</td>
</tr>
<tr>
<td>Infections</td>
<td>Urinary tract infection, pneumonia, sepsis</td>
</tr>
<tr>
<td>Medications</td>
<td>Sedatives, antihistamines, alcohol, anticholinergics, levodopa, dopamine agonists, alcohol or benzodiazepine withdrawal</td>
</tr>
<tr>
<td>Metabolic</td>
<td>Hypoxia, hypoglycaemia, hyperglycaemia, hyponatremia, hypo- or hyper-calcemia, uremic encephalopathy, vitamin B1 or B12 deficiency, hyper- or hypothyroidism, adrenal / pituitary insufficiency</td>
</tr>
<tr>
<td>Neurologic</td>
<td>Encephalitis, meningitis, seizures; If there are focal neurological findings: stroke, subdural haemorrhage</td>
</tr>
</tbody>
</table>

(3) Systematic assessment for cause of acute confusion

**Look for and address potentially reversible causes:**

1. **History:** recent medication changes? dehydration (fluid intake, hot weather, diuretic use)? recent falls history? focal symptoms of infection or pain? bowel function? alcohol history? comorbidities? environmental changes?
2. **Examination:**
   - **Vital signs** - look for tachy- or brady-cardia, hypoxia, hypotension, fever or hypothermia, assess conscious state: AVPU (Alert, responds to Voice, responds to Pain or Unresponsive); postural drop in blood pressure (perform lying and standing blood pressures).
   - **Neurological examination** for signs of new stroke
   - Assess for (modify assessment based on individual symptoms and comorbidities):
     - **Dehydration:** dry mucous membranes
     - **Pain:** use cognition appropriate pain assessment tool eg. PAINAD (review [appendix 1](#))
     - **Urinary retention:** percuss for bladder
     - **Faecal impaction:** palpate abdomen and if required, perform rectal examination
     - **Focal chest findings** on auscultation
     - **Pressure injuries / other sources of infection**
3. **Investigations:** individualise approach based on resident’s wishes if has capacity / Advance Care Plan / Advance Health Directive / input of substitute health decision makers. At a minimum check:
   - **Blood glucose**
   - Full blood count, UEC, calcium, LFT, thyroid tests
   - Blood cultures if fevers, hypothermia or rigors
   - Send mid stream or catheter acquired urine for M/C/S where UTI criteria met (review [#Urinary tract infection](#))

(4) Acute confusion resources

Pain

1. **Assess pain** using a tool appropriate to cognition (review practice point 1)
2. **Check vital signs** (review #Recognition of the deteriorating resident)
3. If not immediately life-threatening, review #Checklist for contact and ring GP

**Does resident have ANY of:**
- Severe pain (= Numeric Pain Score /PAINAD score of greater than or equal to 7 / Abbey Pain Scale score of greater than or equal to 14)
- Pain due to a condition requiring hospital based management
- No cause identified and further hospital based investigations indicated

**Classify type of pain:**
- Nociceptive pain (review practice point 2)
- Neuropathic pain (review practice point 3)
- Pain due to psychological / psychiatric factors (review practice point 4)

Establish pain management plan that encompasses a multi-disciplinary approach with:
1. Pharmacologic management based on type of pain - refer to Australian Medicines Handbook Aged Care Companion or Therapeutic Guidelines: analgesia for guidance on pharmacological management of pain
2. Non-pharmacological therapies (review practice point 5)
3. Assessment for response to pain management plan
4. For visceral pain further investigation for underlying cause of pain may facilitate optimal analgesic management

**NO RESPONSE AND ACUTE PAIN**
- Refer to **HHS RaSS** at GP discretion

**NO RESPONSE AND CHRONIC PAIN**
- Consider referral to **HHS chronic pain service** where available or if palliative goals of care to **HHS palliative care service**

**Structured assessment** by GP and RACF nursing staff to determine cause of pain

** Treat underlying cause of pain **

<table>
<thead>
<tr>
<th>NO RESPONSE AND ACUTE PAIN</th>
<th>NO RESPONSE AND CHRONIC PAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refer to <strong>HHS RaSS</strong> at GP discretion</td>
<td>Consider referral to <strong>HHS chronic pain service</strong> where available or if palliative goals of care to <strong>HHS palliative care service</strong></td>
</tr>
</tbody>
</table>

*This information does not replace clinical judgement*
Pain practice points [52-54]

(1) Pain tools appropriate to cognition

Pain assessment should be undertaken by a verbal pain report by resident where feasible. Initial assessment should be via a multidimensional pain tool (e.g., Resident’s Verbal Brief Pain Inventory); once a comprehensive pain assessment is completed, a unidimensional pain assessment scale can be used for ongoing evaluation of pain and response to management. If cognitively intact, use Numeric Rating Scale; if cognitively impaired, use Abbey Pain Scale or PAINAD (review appendix 1).

(2) Nociceptive pain

<table>
<thead>
<tr>
<th>Type of nociceptive pain</th>
<th>Location</th>
<th>Description</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superficial somatic</td>
<td>Skin and mucosa</td>
<td>Burning / stinging / sharp pain; well localised</td>
<td>Paracetamol, Opioids, Non-pharmacological interventions – cognitive behavioural therapy (CBT), heat, topical preparations</td>
</tr>
<tr>
<td>Deep somatic</td>
<td>Muscles, joints and bones</td>
<td>Aching / gnawing; well localised</td>
<td>Paracetamol, Opioids, Non-pharmacological interventions – warmth, exercise (if medically cleared) if persistent or acute onset in setting of trauma consider imaging</td>
</tr>
<tr>
<td>Visceral</td>
<td>Abdominal and thoracic organs</td>
<td>Deep cramping / squeezing pain; diffuse and not usually well localised; may be referred to cutaneous sites</td>
<td>Optimal analgesic approach influenced by underlying cause GP to consider investigations to determine underlying cause – this will guide analgesic approach</td>
</tr>
</tbody>
</table>

(3) Neuropathic pain

Definition: pain from damage to nervous system.
Features: pain is often burning / shooting / tingling / electric shock and may be referred to area of skin that the nerve would normally supply; less responsive to common analgesics.
Management: 1. Less responsive to conventional analgesics 2. Adjuvant drugs eg. antidepressants / anticonvulsants / topical agents

(4) Pain due to psychological or psychiatric factors

Definition: Somatic complaints may be a presentation of depression (although severe pain may also cause depression) - screen for depression.
Management: If depression present - ensure organic screen undertaken to exclude physical causes of pain and/or depression then consider antidepressant therapy and CBT and involvement of HHS specific Older Persons Mental Health Service

(5) Non-pharmacological therapies

All pain management plans should encompass use of non-pharmacological therapies as appropriate. These may include:
1. Exercise
2. Physical therapies (heat packs / TENS machines)
3. CBT
4. Ensuring appropriate manual handling techniques
5. Complementary therapies: massage, aroma therapy, meditation, music therapy

(6) Pain management resources

- HHS community palliative care services
- HHS chronic pain services where available

This information does not replace clinical judgement
Percutaneous endoscopic gastrostomy (PEG) tube: trouble-shooting a blocked PEG

PEG tube blocked

1. Check vital signs (review #Recognition of the deteriorating resident)
   If not immediately life-threatening review #Checklist for contact and ring GP
   
   UNSTABLE VITALS
   
   Refer to #Management of residents with unstable vital signs

STABLE VITALS

1. Ensure tube clamp is open
2. Check tube for damage / kinks

TUBE UNBLOCKED

Observe resident for next feeding: institute preventive care (review practice point 1)

TUBE REMAINS BLOCKED

1. Aspirate PEG tube with 20mL syringe connected directly to tube to remove as much liquid from within tube lumen proximal to blockage (review practice point 2) on details of connection of 20mL syringe to PEG tube
2. Attempt irrigation of tube with lukewarm water in a 20mL syringe - gently but firmly push and pull plunger back and forth (do NOT use force as this may rupture the feeding tube)
3. Repeat the irrigation attempts with clean warm water in a 20mL syringe and then reattempt flushing of the tube with warm water in a 20mL syringe
4. If tube remains blocked instil lukewarm water into the tube, clamp tube, and let water soak for up to 20 minutes - attempt flushing thereafter
5. DO NOT USE ACID or CARBONATED (fizzy) DRINKS / FLUIDS
6. Successful irrigation of the tube may take 20 to 30 minutes, so patience is key

TUBE REMAINS BLOCKED

Refer to HHS RaSS at GP discretion
Percutaneous endoscopic gastrostomy (PEG) tube: trouble-shooting a blocked PEG practice points [55-57]

(1) Causes and prevention of blocked PEG

1. Medicines not administered appropriately
   a. Review medications with pharmacist to determine compatibility of medications, best delivery mode and most appropriate timing of medications
   b. Use liquid or dispersible medicines where able
   c. Do not mix any medicine directly with enteral feeds - always stop continuous or cycled feeds and flush with water before giving medications

2. Tube not flushed properly
   a. Flush tube well with (preferably warm) water (recommend minimum 30mL) before and after feeds and each medication
   b. Flush tube on changing flask (at least every 4 to 6 hours) if on continuous feeds
   c. Flush tube at least once per day if not in use

3. Putting carbonated beverages through the tube
   a. Carbonated beverages can interact with feeds / medications and cause precipitation of proteins in feeds within tube, making the blockage worse and leading to more clogging at a later time

4. Putting in fluids that are too thick
   a. Thoroughly blend powdered formula prior to passing through tube
   b. A pump may be needed when using thick feeds

5. Continuous feeds with irregular PEG flushes
   a. If the resident has continuous feeds for longer than 4 hours per day, the PEG tube should be flushed once every 4 hours to avoid tube blockage; this would ideally occur via a side port to avoid the need for interruption of feeds

(2) Connecting a 20mL syringe for flushing PEG tubes

A 20mL syringe is ideal for unblocking a PEG tube; the option for connection utilised will depend on whether the gastrostomy tube is ENfit compatible and what equipment is available in the RACF;

Options include:
1. Use of a 20mL ENfit syringe if the gastrostomy tube is ENfit compatible or an ENfit adaptor is available
2. If the gastrostomy tube is not ENfit compatible:
   • attach a Foley adaptor to the gastrostomy tube and use a 20mL Luer Lock syringe OR
   • use a 20mL Luer Slip syringe via the medication port of the gastrostomy (if there is one) - this often requires an assistant to ensure that the other feed port does not pop open whilst attempts are made to unblock the tube

(3) PEG tube resources

- Gastrostomy tube care:  
- Contact service that inserted PEG if possible:
  - Gastroenterology team of HHS referral hospital or
  - Interventional radiology team for RIGs (Radiologically Inserted Gastrostomy) or
  - HHS gastrostomy support services
- PEG support and education from private companies:
  - Abbott: Nurse Educator - 0409 397 621 (Sydney based); Halyard / Avanos (formerly Kimberly Clark): Telephone support and education resources - 0418 314 329; Nutricia: Nurse educator / PEG support including after hours support - 0407 046 272 / 0425 254 284; Nestle support - 1800 671 628

This information does not replace clinical judgement
Percutaneous endoscopic gastrostomy (PEG) tube: trouble-shooting a leaking PEG

PEG tube leaking or irritation at PEG site

1. Check vital signs (review #Recognition of the deteriorating resident)
2. Review #Checklist for contact and ring GP

STABLE VITALS

Refer to #Management of residents with unstable vital signs

UNSTABLE VITALS

Examine for evidence of cause of leakage and treat cause as appropriate:
1. Retention balloon deflated or completely ruptured. Perform balloon volume check. Reinflate balloon with water and recheck volume immediately - this will indicate if balloon is ruptured; if balloon is not ruptured, recheck balloon volume after 2 hours to determine if there is a slow leak. If balloon rupture or deflation is confirmed, a PEG tube change is indicated
2. Bolster too loose or too tight: should be set to allow the external flange to be lifted 2 to 5mm from the skin with gentle traction - if more tighten, if less loosen
3. Infection (review practice point 2) - send swab of site and treat
4. GP to consider commencing proton pump inhibitor if not already used (dispersible preferred)
5. Side torsion or excessive tension on tube causing ulceration and enlargement of tract (review practice point 3) - correct with appropriate dressing / device to stabilise tube
6. Examine infusion plug for cracks or breaks - if present, replace
7. Poor gastric emptying e.g. secondary to gastroparesis or constipation or bowel obstruction; gastric venting may provide symptomatic relief while cause is being investigated
8. Protect skin using barrier wipe e.g. Cavilon no-sting barrier wipe 3MTM 3rd daily; note: avoid use of hydrogen peroxide

Is there evidence of:
1. Buried bumper syndrome (review practice point 1)
2. Splits or cracks of PEG tubing
3. Discolouration and irregular beading of the PEG tube

YES

Refer to HHS RaSS at GP discretion

ONGOING LEAKING WITH NO CAUSE IDENTIFIED OR IDENTIFIED CAUSE REQUIRES SPECIALIST INPUT

NO

Observe resident for next feeding; institute preventive care (review #PEG tube: troubleshooting a blocked PEG practice point 1)

NO ONGOING LEAKING

This information does not replace clinical judgement
Percutaneous endoscopic gastrostomy (PEG) tube: trouble-shooting a leaking PEG practice points [58,59]

(1) Buried bumper syndrome

Caused by excessive tension between the external and internal bolsters, causing inflammation and ultimately breakdown of the tract and migration of the internal bolster through the gastric mucosa;

Suspect if:
1. Tube is fixed (unable to push tube in and out: gentle traction should allow the external flange to be lifted 2 to 5mm from the skin)
2. Abdominal pain and tenderness at site
3. Increased peristomal leakage
4. Breakdown of site
5. Inability to infuse water / feeds through tube
6. Bleeding at PEG site
7. Recurrent peristomal infections

(2) Infection of PEG site

• May be fungal or bacterial
• Do a swab of the PEG site if infection is suspected and send for m/c/s
• Suspect bacterial infection if PEG site surrounded by:
  1. Redness
  2. Tenderness
  3. Purulent discharge (pus)
• Treat with antibiotics (review #Cellulitis)
• For fungal infections - treat with topical antifungals

(3) Side torsion or excessive tension

Side torsion refers to excessive tension on PEG tubing resulting in lateral pressure on one side of the PEG tract, causing pressure injury and secondary enlargement of the tract; manage by use of appropriate stabilisation device

a. Excessive lateral tension on the PEG tubing (caused when caught under bedding, bedrail or the resident’s body puts excessive lateral pressure against the tract of the PEG tube) resulting in pressure injury and enlargement of PEG tract;
b. Shifting the tube to the opposite side reveals an acute ulceration with exudate on the side to which the torsion is applied

(4) PEG tube management resources

General information:
- Contact service that inserted PEG if possible:
  - Gastroenterology team of HHS referral hospital or
  - Interventional radiology team for RIGs (Radiologically Inserted Gastrostomy)
  - HHS gastrostomy support services
• Membership of the local ostomy association may afford the resident free equipment and medical supplies for management of gastrostomy needs


This information does not replace clinical judgement
Resident with suspected pneumonia

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP
3. Is the resident approaching end of life (review #End of life management)?

UNSTABLE VITALS or approaching end of life

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

DEVELOPS RISK FEATURES

1. Initiate appropriate investigations and commence oral antibiotics (review practice points 2 and 3)
2. Undertake supportive care (review practice point 4)
3. Monitor for above risk features
4. Expect improvement within 48 hours

FAILS TO IMPROVE

Is there evidence of risk feature/s:
- Respiratory rate > 30/min
- Systolic (top) blood pressure < 90mmHg
- Oxygen saturation < 92 per cent (or if resident has chronic obstructive pulmonary disease (COPD) < 90 per cent)
- Altered mental state (different from usual)
- New or increased agitation

NO

Consider alternate cause for symptoms

YES

Resident has any one of:
- New or increased:
  - Cough
  - Sputum
- Abnormal findings on chest examination
  - Pleuritic chest pain
    (worse on taking a breath in)
- Fever (review practice point 1)

NO

Resident has any of:
- Inability to tolerate oral/PEG intake
- Pulse > 100/minute
- Immunosuppressed (e.g. on steroids)

YES

Refer to HHS RASS at GP discretion

YES

STABLE VITALS
Pneumonia practice points [60-62]

(1) Fever definition

Fever is defined as temperature higher than 38 degrees Celsius OR an increase of more than 1.5 degrees Celsius above resident’s baseline temperature.

(2) Antibiotics for residents with pneumonia

Treat with oral antibiotics for 7 days:

If uncomplicated and NO penicillin allergy and NO suspicion of aspiration use:
amoxycillin 1g orally every 8 hours

If aspiration suspected and NO penicillin allergy use:
amoxycillin-clavulanate 875mg + 125mg orally every 12 hours

If non-immmediate penicillin allergy use:
cefuroxime 500mg orally every 12 hours

If immediate penicillin allergy or clinical concern for atypical organism use:
doxycycline 100mg orally every 12 hours

NB: Management of residents within hospital rather than within the facility in the absence of risk features does not decrease mortality which remains at ~30 per cent.

(3) Investigations for residents with pneumonia

Consider following investigations:
1. CXR if diagnostic uncertainty
2. Sputum m/c/s
3. Urinary antigens for Pneumococcus and Legionella

(4) Supportive care for residents with pneumonia

1. **Monitor fluid balance closely** and consider subcutaneous fluids if required - pneumonia with associated fever and tachypnoea can lead to significant insensible water loss.
2. **Review and treat risk factors for pneumonia:**
   i. Assess swallow - change fluids to those appropriate to swallow
   ii. Assess neurological function
   iii. Attend to oral hygiene
   iv. Control gastro-oesophageal reflux - elevate head of bed
   v. Update immunisation as required for influenza and pneumococcus when recovered from acute episode
3. **Analgesics and antipyretics** for pain and fever
4. Review medications and consider withholding or adjusting dose, where appropriate, of sedative medications

(5) Resources for residents with pneumonia

- For advice on selection of antibiotics contact the **HHS RaSS** or the local infectious diseases team.

This information does not replace clinical judgement
Shortness of breath (SOB)

Resident with acute onset shortness of breath (SOB)

1. Sit resident upright in a comfortable position, reassure and assess severity - look for red flags in shortness of breath (review practice point 1)
2. Check vital signs (review #Recognition of the deteriorating resident)
3. Apply oxygen to maintain oxygen saturations at 92 to 96 per cent (if history of COPD aim for 88 to 92 per cent)
4. If not immediately life-threatening review #Checklist for contact and ring GP

UNSTABLE VITALS OR RED FLAGS PRESENT

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

STABLE VITALS AND RED FLAGS ABSENT

Does structured history and clinical assessment with GP identify cause? (review practice point 2)

CAUSE IDENTIFIED or specific management pathway exists

Refer to specific management pathway

CAUSE NOT IDENTIFIED or no specific management pathway exists

Refer to HHS RaSS at GP discretion
### Shortness of breath (SOB) practice points [63]

#### (1) Red flags in residents with shortness of breath

1. New inability to speak or only able to speak in single words
2. New altered level of consciousness
3. Cyanosis (blue discolouration to tongue, skin, lips or digits)
4. Physical exhaustion or inability to maintain respiratory effort
5. Use of accessory muscles of breathing (breathing associated with contraction of the sternocleidomastoid or scalene muscles in the neck, contraction of abdominal muscles)
6. Retraction of supra-clavicular or suprasternal fossae or of lower ribs during inspiration
7. Inability to lie supine
8. Profound sweating
9. Agitation (new)
10. Pulse rate more than 130 or less than 40 beats per minute
11. Respiratory rate more than 30 or less than 6 breaths per minute

#### (2) Clinical history and examination findings in residents with shortness of breath (SOB)

<table>
<thead>
<tr>
<th>Cause</th>
<th>History</th>
<th>Examination / bedside investigations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper airway obstruction</td>
<td>Sudden onset during eating</td>
<td>Shouting noise on in-breath (stridor)</td>
</tr>
<tr>
<td></td>
<td>Swelling of lips / tongue / throat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Altered level of consciousness</td>
<td></td>
</tr>
<tr>
<td>Angina or myocardial infarct</td>
<td>Dull central chest pain +/- radiation of pain or heaviness to jaw or arms Note ischemic chest pain may present atypically in older persons</td>
<td>Sweating</td>
</tr>
<tr>
<td></td>
<td>Palor</td>
<td></td>
</tr>
<tr>
<td>Congestive cardiac failure (CCF)</td>
<td>Orthopnoea (increased SOB on lying flat)</td>
<td>New irregular or very slow pulse</td>
</tr>
<tr>
<td></td>
<td>Paroxysmal nocturnal dyspnea (waking at night with SOB) Weight gain Prior history of CCF</td>
<td>Jugular venous distension</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bilateral basal inspiratory crackles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ankle oedema or swelling</td>
</tr>
<tr>
<td>Exacerbation of COPD or asthma</td>
<td>Previous history of COPD or asthma Smoking history</td>
<td>Bilateral polyphonic wheeze Beware the silent chest or residents sitting forwards in “tripod” position.</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>Pleuritic (worse on inspiration) chest pain Fever Cough with purulent sputum</td>
<td>Elevated temperature Focal consolidation or bronchial breath sounds</td>
</tr>
<tr>
<td>Pulmonary Embolism (PE)</td>
<td>Past history of PE or DVT Pleuritic (worse on inspiration) chest pain History of cancer Calf pain or swelling</td>
<td>Unilateral calf tenderness or swelling (may be absent) Often have a clear chest</td>
</tr>
<tr>
<td>Pneumothorax</td>
<td>Recent history of falls with rib pain Recent medical procedure near chest History of previous pneumothorax</td>
<td>Reduced breath sounds on affected side</td>
</tr>
<tr>
<td>Diabetic ketoacidosis</td>
<td>Frequent, high volume urination Increased fluid intake History of diabetes</td>
<td>High blood glucose level High urinary ketones</td>
</tr>
<tr>
<td>Anemia</td>
<td>Past history of anemia Blood loss: most commonly in the stools</td>
<td>Pallor Low hemoglobin</td>
</tr>
</tbody>
</table>
Subcutaneous fluids and dehydration

Resident with dehydration

1. Check vital signs (review Recognition of the deteriorating resident)
2. If not immediately life-threatening review Checklist for contact and ring GP
3. With GP undertake a systematic assessment for cause and severity of dehydration

NOTE: there is no evidence to support use of subcutaneous fluids at end of life

UNSTABLE VITALS

Refer to #Management of residents with unstable vital signs

STABLE VITALS

Check for risk features:
- Severe dehydration
- Pre-existing cardiac failure
- Pulmonary oedema
- Lymphoedema
- Terminal care where this is the sole indication
- Coagulation defects

NO RISK FEATURES

Subcutaneous fluids are appropriate AND resident has one of:
- Mild dehydration
- Poor oral intake
- Nausea and vomiting
- Diarrhoea
- Dysphagia?

YES

PATIENT STABLE AND RECOMMENCES ORAL INTAKE?

YES

1. Encourage oral fluids as appropriate to each individual resident
2. Cease subcutaneous fluids
3. Monitor fluid balance and blood sugar closely

NO

Refer to HHS RaSS at GP discretion

NO RISK FEATURES

Subcutaneous fluids are appropriate AND resident has one of:
- Mild dehydration
- Poor oral intake
- Nausea and vomiting
- Diarrhoea
- Dysphagia?

NO

PATIENT STABLE AND RECOMMENCES ORAL INTAKE?

YES

1. Encourage oral fluids as appropriate to each individual resident
2. Cease subcutaneous fluids
3. Monitor fluid balance and blood sugar closely

NO

Refer to HHS RaSS at GP discretion

1. GP orders appropriate fluid (usually 0.9 per cent saline)
2. Insert subcutaneous device after appropriate skin preparation to a non-oedematous position as shown in diagram opposite (review practice point 1 for site selection)
3. Secure with appropriate dressing
4. Prime IV giving set, attach to subcutaneous device and commence infusion (review practice point 2 for rate)
5. Monitor site and hydration
6. Change site regularly (review practice point 3)
Subcutaneous fluids and dehydration practice points [64-66]

(1) Choosing a site

CONSIDER:
1. Resident mobility
2. Comfort and access
3. Skin condition
4. Use of a safety device for administration of subcutaneous fluids (e.g. BD Saf-T-Intima)

AREAS WITH ADEQUATE SUBCUTANEOUS FAT:
1. Anterior abdomen
2. Anterior thigh
3. Upper outer arm

AREAS THAT SHOULD NOT BE USED:
1. Limbs with lymphoedema
2. Overlying bony prominences
3. Areas of skin previously exposed to radiotherapy
4. Near a joint
5. Near a surgical or chronic wound site
6. Sites of infection or inflammation

(2) Rate of administration

Should be individualised based on degree of dehydration and comorbidities
Generally up to 1mL/minute at each site, resulting in a rate of up to 60mL/hour
If using 2 sites up to 3L in a 24 hour period may be administered (with 1.5L being administered at each site)

** SITE SHOULD BE CHECKED EVERY 4 HOURS FOR BRUISING, REDDENING, OEDEMA, LEAKING, PAIN, POOLING OR UNRESOLVED BLANCHING

(3) Changing sites

** FOR MAXIMUM ABSORPTION RATE ROTATE SITE REGULARLY (AT A MINIMUM AFTER EVERY 2L OF FLUID)
** INDICATIONS FOR CHANGE OF INFUSION SITE INCLUDE:
1. Pain at administration site
2. Redness or inflammation of skin surrounding site
3. Dislodged needle
4. Localised oedema (swelling) / bleeding / bruising

(4) Appropriate fluids

Fluids identified in controlled trials to be safe to administer via subcutaneous routes include 0.9 per cent saline (normal saline); 0.45 per cent saline (half-normal saline) and 5 per cent dextrose (although the latter may be associated with hyponatremia)

** Necrosis (sloughing) of skin may occur if inappropriate fluids are used - inappropriate fluids include markedly hypertonic or hypotonic fluid or those containing high concentrations of potassium chloride

This information does not replace clinical judgement
Tracheostomy tubes

**Ensure all residents with a tracheostomy have an accessible Advance Care Plan to guide management**

1. Remove cap if present
2. Apply 100 per cent oxygen to BOTH face and tracheostomy stoma
3. Call for help - if significant respiratory distress or cyanosis: Call QAS on 000
4. Remove speaking valve if present and remove inner cannula to clean before reinserting

---

**TO VENTILATE RESIDENT:**
- If previous laryngectomy (suspect if no tube present in stoma) use the smallest face mask applied to neck stoma with bag-valve-mask ventilation
- If no prior laryngectomy, trial ventilation by usual oral route

---

**Call QAS on 000**
Commence CPR if no pulse or signs of life unless otherwise stated in Advance Care Plan or Advance Health Directive

---

**Is resident breathing?**

---

**Can you pass a suction catheter?**

---

**Deflate tracheostomy cuff if present**

---

**Reassess breathing and oxygenation:** Look, listen and feel at mouth and tracheostomy

---

**Support ventilation and await QAS arrival**

---

This information does not replace clinical judgement
Tracheostomy tubes practice points [67, 68]

(1) Tracheostomy care

Ensure that staff looking after residents with tracheostomies have completed competencies on their management

Complications are reduced by ensuring:
1. Resident is encouraged to cough own secretions - if unable to clear own secretions, initiate suctioning with non-fenestrated inner cannula
2. Provide humidification with swedish nose or Airvo
3. Keep stoma clean and dry and provide regular pressure care
4. Regularly check and clean inner cannula at least every 4 hours
5. Do not allow secretions to pool around stoma

(2) Tracheostomy tube features

(3) Residents with a history of laryngectomy

** NOTE: Patients with a history of laryngectomy are NECK BREATHERS - this means they can ONLY breathe through the stoma in their neck. If they require bag-valve-mask ventilation (or breathing or oxygen support) use the smallest mask available via the neck stoma ONLY - provision of oxygen / ventilatory support via the mouth will not result in oxygenation

(4) Tracheostomy resources

- **HHS ENT Outpatient clinics**
- Some HHSs have ENT Clinical Nurse Consultants who provide education to RACF staff on tracheostomy management - please contact your HHS RaSS for further information
- Equipment support: private companies that provide tracheostomy equipment may provide equipment education of support (e.g. Fisher and Paykel) - please contact your local representative and enquire

This information does not replace clinical judgement
Urinary tract infections (UTI)

Resident with suspected urinary tract infection (UTI)

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP

UNSTABLE VITALS

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

STABLE VITALS

Does resident meet criteria to check for a UTI? (review practice point 1)

UNSTABLE VITALS

1. Commence oral antibiotics with choice influenced by flank tenderness, allergies and prior organism sensitivities (review practice point 2)
2. Analgesia as required
3. Note: Increased falls risk may occur due to urgency / frequency / delirium - increase supervision and modify environment to reduce risk of falls
4. Monitor for systemic symptoms or change in vital signs (QID vital signs for 72 hours)

Refer to HHS RaSS at GP discretion

NO

GP and RACF to continue ongoing care and monitoring

YES

Refer to HHS RaSS at GP discretion

Is there either ongoing vomiting or rigors (uncontrolled shivering / shaking)?

NO

YES

1. Obtain urine sample for microscopy, culture and sensitivities
2. If indwelling catheter (IDC) or suprapubic catheter (SPC) insitu, change catheter

Look for alternate cause of symptoms and do not send urine sample for culture

If no alternate cause of symptoms found, refer to HHS RaSS at GP discretion

NO
Urinary tract infections (UTI) practice points [5, 31, 32, 69]

(1) Criteria to check for a UTI

**ONLY** check for a UTI if the resident has either:

**ACUTE ONSET OF DYSURIA** (burning or stinging when passing urine)

**OR** the resident has **TWO or more criteria for a UTI** (at least one of which is a major criterion) or if the resident has an IDC or SPC at least one criteria of:

**Major criteria:**
- **FEVER** (where this is defined as a single oral temperature of > 38 degrees Celsius or an increase in temperature >1.5 degrees Celsius over resident’s baseline temperature)
- **ALTERED MENTAL STATE** without another cause

**Minor criteria:**
- New or worsening **URGENCY** or **FREQUENCY**
- **SUPRAPUBIC** or **FLANK PAIN** or tenderness
- Gross **HAEMATURIA** (blood stained urine) without another cause
- New or worsening urinary **INCONTINENCE**
- **RIGORS** (uncontrollable shivering or shaking)

**Urine odour and appearance are not predictive of UTI**

**Do not screen urine in asymptomatic residents** because residents in aged care facilities have high rates of abnormal dipsticks without UTI necessarily being present

**Do not screen urine based on an isolated episode of behavioural change**

**Multiple randomised trials have shown no benefit by treating asymptomatic bacteriuria**

(2) Antibiotic selection in a UTI (review #Fever / suspected infection for principles)

**IF FLANK TENDERNESS ABSENT** and above criteria met = CYSTITIS:

Duration of antibiotics:
- Females = 5 days; Males = 7 days

For empirical therapy of uncomplicated cystitis use: **nitrofurantoin** 100mg orally, 6 hourly

(NB: Should be avoided in residents with renal impairment and an estimated GFR < 45mL /minute or in those using concurrent urinary alkalisising agents, which may reduce effectiveness of nitrofurantoin)

Where nitrofurantoin cannot be used, use cefalexin 500mg orally every 12 hours

**IF FLANK TENDERNESS PRESENT**, above criteria met = PYELONEPHRITIS

Duration of antibiotics:
- Females and males = 10 to 14 days

If **NO penicillin allergy** use: amoxicillin and clavulanate 875mg + 125mg orally every 12 hours

If **penicillin hypersensitivity** use: ciprofloxacin 500mg orally, every 12 hours for 7 days

(3) Prevention of UTI

Avoid condom catheters and review indication for IDC regularly; there is no indication for prophylactic antibiotics administered with IDC change

Topical vaginal oestrogen decreases incidence of UTI in post-menopausal women

(4) Resources for residents with UTI


This information does not replace clinical judgement
Wound management

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP
3. Are red flags present?
   • Unstable vitals
   • Significant wound bleeding unable to be controlled with pressure
   • Acutely ischemic limb (pale, pulseless, painful)
   • Underlying suspected bony injury
   • Significant other injury

   YES

   Review Advance Care Plan and refer to #Management of residents with unstable vital signs

   NO

   Institute appropriate acute wound management principles:
   1. Control bleeding
   2. Assess pain and administer analgesia if required
   3. Irrigate with normal saline
   4. Assess wound edge apposition: for skin tears if skin flap remains viable gently replace tissue flap avoiding tension on flap; for lacerations use steristrips, wound adhesive or sutures to improve apposition, as indicated; steristrips and tapes should be avoided in management of skin tears as they may cause damage on removal
   5. For appropriate dressings, refer to appendix 4 skin tears resource or to Therapeutic Guidelines: ulcer and wound management
   6. Review resident’s tetanus immunisation status and administer booster +/- tetanus immunoglobulin as per Australian Immunisation Handbook

1. If fall precipitated the wound: refer also to #Falls pathway
2. If wound within scope of practice of RACF and GP to manage: monitor wound healing

WOUND OUTSIDE OF SCOPE OF PRACTICE OF RACF AND GP, OR WOUND COMPLICATION DEVELOPS?

YES

Refer to HHS RaSS

NO

Is the wound acute or chronic (review practice point 1)

Is the cause of the wound clear?

YES

Go to Wound failing to respond or is high risk wound initially (review practice point 3)

NO

Determine location and type of chronic wound (review practice point 2)

Institute appropriate wound management as determined by cause of wound (review appendix 3 for wound management resources)

Resident with wound

GP to refer to HHS OPD service

Refer to HHS OPD service

Resident develops systemic symptoms or signs

YES

NO

This information does not replace clinical judgement
Wound management practice points [70-73]

(1) Acute versus chronic wounds

**Acute wounds** here refer to wounds in which healing is anticipated to progress normally through an orderly and timely repair process with resolution of the wound within no more than 4 weeks.

**Chronic wounds** are wounds in which there is impaired healing and include diabetic foot ulcers, pressure ulcers, arterial and venous ulcers.

(2) Determining the type of chronic wound

Type of wound is determined on basis of history, examination and appropriate investigations. For any chronic wound where the resident has had exposure to pressure forces, establish if the wound is a pressure injury and ensure an appropriate pressure injury prevention plan is in place. Any wound that fails to respond to appropriate wound management should be considered for biopsy to exclude a neoplastic cause, particularly if wound present for > 3 months. **Wounds are considered HIGH RISK if there is any of:** exposed bone or bone is easily probed, tissue necrosis overlies bone, gangrene is present, persistent sinus tract, underlying open fracture, underlying internal fixation, bites, or if the wound persists or recurs. Wounds are also considered HIGH RISK if occurring in immunosuppressed or diabetic patients.

<table>
<thead>
<tr>
<th>TYPE OF WOUND</th>
<th>Arterial Ulcer</th>
<th>Venous Ulcer</th>
<th>Diabetic Ulcer (= Neuropathic Ulcer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY</td>
<td>History of smoking, intermittent claudication</td>
<td>History of any of: Thrombophlebitis, DVT, varicose veins, lower extremity injury, surgery to leg; aching and swelling worse at end of day and relieved with leg elevation</td>
<td>History of diabetes, numbness, paraesthesiae, burning or loss of sensation in feet</td>
</tr>
<tr>
<td>PAIN</td>
<td>Often very painful requiring strong analgesics; pain increases with exercise and leg elevation</td>
<td>Pain often dragging ache worse with mobilisation and relieved by leg elevation</td>
<td>Painless or burning pain</td>
</tr>
<tr>
<td>TYPICAL LOCATION</td>
<td>Distal lower limbs especially overlying bony prominences</td>
<td>Lower 1/3 of leg</td>
<td>Sites of pressure in foot e.g. metatarsal heads, heels and toes</td>
</tr>
<tr>
<td>ULCER APPEARANCE</td>
<td>Round or punched out ulcer with sharply demarcated border, base often pale or discoloured nonviable tissue</td>
<td>Shallow, irregular margins, often with fibrinous material at ulcer bed</td>
<td>Surrounding callus, variable depth</td>
</tr>
<tr>
<td>SURROUNDING SKIN</td>
<td>Cold, pale feet; loss of hair; shiny taut skin</td>
<td>Peripheral oedema; venous dermatitis (pigmented skin); +/- atrophy blanche or white scar formation</td>
<td>Frequently callused</td>
</tr>
<tr>
<td>VASCULAR STATUS</td>
<td>Capillary refill time &gt; 4-5 seconds; pulses weak or absent</td>
<td>Capillary refill time &lt; 3 seconds; pulses generally present</td>
<td>Capillary refill time &lt; 3 seconds if no associated arterial disease; potential for bounding pulses</td>
</tr>
<tr>
<td>ANKLE BRACHIAL INDEX (ABI)</td>
<td>ABI: 0.6 to 0.9 = peripheral arterial occlusive disease; &lt; 0.5 = critical arterial disease</td>
<td>Normal ABI 0.9 or higher</td>
<td>Normal ABI 0.9 if no associated arterial disease</td>
</tr>
</tbody>
</table>

Appendix 1: RACF resident assessment tools

The following RACF resident assessment tools are provided as a resource for use if required; RACF providers may have their own preferred assessment tools.

**AVPU: Assessment tool for conscious state [74]**

AVPU (an acronym for Alert, Voice, Pain, Unresponsive) is a simple assessment scale to assess the conscious level of residents.

- **A** = the resident is fully awake
- **V** = the resident responds to verbal stimulation only
- **P** = the resident responds to painful stimulation only
- **U** = the resident is completely unresponsive

Provided for information only - Contact HIU@health.qld.gov.au
Cognition appropriate pain assessment tool: PAINAD [75]

PAINAD or Pain Assessment in Advanced Dementia Scale, is a pain assessment tool designed for assessment of pain in those with advanced cognitive impairment.

Instructions:
• Observe the resident for 5 minutes prior to scoring
• Score according to chart below
• If resident assessed to be in pain, repeat scoring after administration of analgesia to determine effectiveness of analgesia
• Scoring:
  - Total score ranges from 0 to 10 points
  - If PAINAD score:
    • 1 to 3 = mild pain
    • 4 to 6 = moderate pain
    • 7 to 10 = severe pain

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breathing (score when not talking)</strong></td>
<td></td>
</tr>
<tr>
<td>Normal breathing = quiet, effortless, smooth breathing</td>
<td>0</td>
</tr>
<tr>
<td>Occasional labored breathing (= episodic bursts of harsh, difficult respirations) or short periods of hyperventilation (short periods of rapid, deep breaths)</td>
<td>1</td>
</tr>
<tr>
<td>Noisy laboured breathing (= loud or gurgling or wheezing breathing that looks strenuous) or Long period of hyperventilation or Cheyne-Stokes respirations (rhythmic waxing and waning of breathing from very deep to shallow respirations with periods of apnoea or cessation of breathing)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Negative speech</strong></td>
<td></td>
</tr>
<tr>
<td>None = speech has neutral or pleasant quality</td>
<td>0</td>
</tr>
<tr>
<td>Occasional moan or groan or low-level speech with a negative or disapproving quality (= muttering, mumbling, whining, grumbling or swearing in a low volume with a complaining, sarcastic or caustic tone)</td>
<td>1</td>
</tr>
<tr>
<td>Repeated troubled calling out; loud moaning or groaning or crying</td>
<td>2</td>
</tr>
<tr>
<td><strong>Facial expression</strong></td>
<td></td>
</tr>
<tr>
<td>Smiling or inexpressive</td>
<td>0</td>
</tr>
<tr>
<td>Sad or frightened or frowning</td>
<td>1</td>
</tr>
<tr>
<td>Facial grimacing</td>
<td>2</td>
</tr>
<tr>
<td><strong>Body language</strong></td>
<td></td>
</tr>
<tr>
<td>Relaxed</td>
<td>0</td>
</tr>
<tr>
<td>Tense or distressed or pacing or fidgeting</td>
<td>1</td>
</tr>
<tr>
<td>Rigid or fists clenched or knees pulled up or pulling or pushing away or striking out</td>
<td>2</td>
</tr>
<tr>
<td><strong>Consolability</strong></td>
<td></td>
</tr>
<tr>
<td>No need to console</td>
<td>0</td>
</tr>
<tr>
<td>Distracted or reassured by voice or touch</td>
<td>1</td>
</tr>
<tr>
<td>Unable to console, distract or reassure</td>
<td>2</td>
</tr>
</tbody>
</table>

The PAINAD was developed and tested by clinicians and researchers at the New England Geriatric Research Education and Clinical Center, a Department of Veterans Affairs center of excellence with divisions at EN Rogers Memorial Veterans Hospital, Bedford, MA, and VA Boston Health System.
Cognition appropriate pain assessment tool: ABBEY PAIN SCALE [76]

Abbey Pain Scale (Pain Assessment in Advanced Dementia Scale) is a pain assessment tool designed for assessment of pain in those who are unable to clearly articulate their needs.

Instructions:
- While observing the resident score behaviours 1 to 6 – the scale is best used while the resident is being moved (e.g. during pressure area care) rather than while static
- Score according to chart below
- If resident assessed to be in pain, repeat scoring after administration of analgesia to determine effectiveness of analgesia
- Scoring:
  - Total score ranges from 0 to 18 points
  - If Abbey Pain Score:
    - 0 to 2 = no pain
    - 3 to 7 = mild pain
    - 8 to 13 = moderate pain
    - 14+ = severe pain

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Points</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Vocalisation = whimpering, groaning, crying</td>
<td>Absent</td>
<td>Mild</td>
</tr>
<tr>
<td>Facial expression = looking tense, frowning, grimacing, looking frightened</td>
<td>Absent</td>
<td>Mild</td>
</tr>
<tr>
<td>Change in body language = fidgeting, rocking, guarding part of body, withdrawn</td>
<td>Absent</td>
<td>Mild</td>
</tr>
<tr>
<td>Behavioural change = increased confusion, refusing to eat, alteration in usual patterns</td>
<td>Absent</td>
<td>Mild</td>
</tr>
<tr>
<td>Physiological change = temperature, pulse or blood pressure outside normal limits, perspiring, flushing or pallor</td>
<td>Absent</td>
<td>Mild</td>
</tr>
<tr>
<td>Physical changes = skin tears, pressure areas, arthritis, contractures, previous injuries</td>
<td>Absent</td>
<td>Mild</td>
</tr>
</tbody>
</table>

Delirium screening tool: Confusion Assessment Method (CAM) [77]

The Confusion Assessment Method (CAM) is a tool that facilitates screening for delirium. Instructions:

- Score according to chart below
- Scoring - delirium is suggested if:
  - All items in box 1 are answered YES and
  - At least one item in box 2 is answered YES

### Box 1:

<table>
<thead>
<tr>
<th>I. Acute onset and fluctuating course</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Is there evidence of an acute change in mental status from the resident’s baseline? OR</td>
</tr>
<tr>
<td>b. Did the abnormal behaviours fluctuate during the day (i.e. tend to come and go or increase and decrease in severity)?</td>
</tr>
<tr>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Inattention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the patient have difficulty in focusing attention, for example, being easily distractible or having difficulty keeping track of what was being said?</td>
</tr>
<tr>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

### Box 2: Perform if both of above are answered yes

<table>
<thead>
<tr>
<th>I. Disorganised thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the resident’s thinking disorganised or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?</td>
</tr>
<tr>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Altered level of consciousness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, how would you rate the patient’s level of consciousness?</td>
</tr>
<tr>
<td>Alert</td>
</tr>
<tr>
<td>Vigilant</td>
</tr>
<tr>
<td>Lethargic (drowsy, easily aroused)</td>
</tr>
<tr>
<td>Stupor (difficult to rouse)</td>
</tr>
<tr>
<td>Coma (unrousable)</td>
</tr>
<tr>
<td>Score as yes if level of consciousness lower than alert</td>
</tr>
<tr>
<td>Score as no if alert</td>
</tr>
<tr>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

Confusion Assessment Method. © 2003, Hospital Elder Life Program, LLC. Not to be reproduced without permission.

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Neuropsychiatric inventory [78, 79]

Answer the questions (next page) based on changes that have occurred since the resident first began to experience a change in behaviours

Circle “yes” only if the symptom has been present in the past month
Otherwise circle “no”

For each item marked “yes”:

A. Rate the severity of the symptom (how it affects the resident):
   1 = mild (noticeable, but not a significant change)
   2 = moderate (significant, but not a dramatic effect)
   3 = severe (very marked or prominent, a dramatic change)

B. Rate the distress the caregiver / staff experiences due to that symptom:
   0 = not distressing at all
   1 = minimal (slightly distressing, not a problem to cope with)
   2 = mild (not very distressing, not always easy to cope with)
   3 = moderate (fairly distressing, not always easy to cope with)
   4 = severe (very distressing, difficult to cope with)
   5 = extreme or very severe (extremely distressing, unable to cope with)

SCORING:

Total NPI-Q severity score = sum of individual symptom scores (range 0-36)
Total NPI-Q distress score = sum of individual symptom scores (range 0-60)

Higher scores indicate more behavioural disturbance. However, there is no “cut-off” point for abnormal findings, as each symptom that is present may be significant in its own right.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Has this symptom occurred in the last month?</th>
<th>Severity</th>
<th>Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delusions:</td>
<td>Does the resident believe that others are stealing from them / planning to harm them in some way?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>Yes / No</td>
<td></td>
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<tr>
<td>Hallucinations:</td>
<td>Does the resident act as if they hear voices or talks to people who are not there?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>Yes / No</td>
<td></td>
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<tr>
<td>Agitation or aggression:</td>
<td>Is the resident stubborn and resistive to help from others?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression or dysphoria:</td>
<td>Does the resident act as if they are sad or in low spirits or cries?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>Yes / No</td>
<td></td>
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<tr>
<td>Anxiety:</td>
<td>Does the resident become upset when separated from you? Do they have any other signs of nervousness such as shortness of breath, sighing, being unable to relax, or feeling excessively tense?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elation/Euphoria:</td>
<td>Does the resident appear to feel too good or act excessively happy?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
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<tr>
<td></td>
<td>Yes / No</td>
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<tr>
<td>Apathy/Indifference:</td>
<td>Does the resident seem less interested in their usual activities or in the activities and plans of others?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
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<tr>
<td></td>
<td>Yes / No</td>
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<tr>
<td>Disinhibition:</td>
<td>Does the resident seem to act impulsively?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
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<tr>
<td></td>
<td>Yes / No</td>
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<tr>
<td>Irritability/Lability:</td>
<td>Is the resident impatient and cranky? Do they have difficulty coping with delays or waiting for planned activities?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
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<tr>
<td></td>
<td>Yes / No</td>
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<tr>
<td>Motor Disturbance:</td>
<td>Does the resident engage in repetitive activities such as pacing around the facility, handling buttons, wrapping string or doing other things repeatedly?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
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<tr>
<td></td>
<td>Yes / No</td>
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<tr>
<td>Nighttime Behaviours:</td>
<td>Does the resident awaken you during the night, rise too early in the morning, or take excessive naps during the day?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
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<td></td>
<td>Yes / No</td>
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<tr>
<td>Appetite/Eating:</td>
<td>Has the resident lost or gained weight, or had a change in the type of food liked?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
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<td></td>
<td>Yes / No</td>
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</table>
Appendix 2: Residential Aged Care End of Life Care Pathway

Residential Aged Care
End of Life Care Pathway
(RAC EoLCP)

Instructions for Completing the Pathway

Section 1: Commencing a Resident on the Pathway
Medical Officer to be consulted and documentation can be completed by any of the following:
GP, PCMO, PCNS, RN

Section 2: Medical Interventions and Advance Care Planning
Medical Officer to be consulted and documentation can be completed by any of the following:
GP, PCMO, PCNS, RN

Section 3: Care Staff Interventions
Part A - Care Management
To be completed by RN or Enrolled Nurse (EN)

Part B - Comfort Care Chart
To be completed by attending Nursing and Care Staff
A new chart is to be commenced daily

Part C - Further Care Action Sheet
Nursing and Care Staff are to document any further actions taken to improve comfort care

Section 4: Multidisciplinary Communication Sheet
All members of the multidisciplinary team can document here

Section 5: After Death Care
To be completed upon death of a resident by the attending nurse

Note: Dependent upon individual RACF practices, it may be preferred to use existing facility documentation tools to record Sections 4 and 5.
Section 1: Commencing a Resident on the Pathway

The signs and symptoms listed below are considered to indicate that the terminal phase of life is imminent. (‘Guidelines for a Palliative Approach in Residential Aged Care’ Australian Government Department of Health and Ageing [2006])

It is appropriate to start the pathway if three or more of these signs and symptoms are applicable to the resident. The final decision to commence the pathway is a clinical one, supported by the views of the GP, multidisciplinary team and, if possible, the resident and/or their representative*.

Please note, in some cases residents may be commenced on the pathway and then taken off the pathway if their condition improves.

### Signs and symptoms associated with the terminal phase

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Experiencing rapid day to day deterioration that is not reversible</td>
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<td>Requiring more frequent interventions</td>
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<td>Becoming semi-conscious, with lapses into unconsciousness</td>
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<td>Increasing loss of ability to swallow</td>
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<td>Refusing or unable to take food, fluids or oral medications</td>
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<td>Irreversible weight loss</td>
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<td>An acute event has occurred, requiring revision of treatment goals</td>
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<td>Profound weakness</td>
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<td>Changes in breathing patterns</td>
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### Agreement to commence on pathway

Verbal (✓) | Print name | Title | Signature | Date
---|---|---|---|---
| | | | |
| | | | |
| | | | |

*substitute decision maker
As a minimum, a reassessment of the commencement criteria should occur every three days.

<table>
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<tr>
<th>Intervention</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
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<tr>
<td>Essential medications, via appropriate route, charted</td>
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<td>PRN medications ordered as per guidelines</td>
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<td>Nonessential medications discontinued</td>
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<tr>
<td>Subcutaneous infusion(s) commenced if appropriate</td>
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<td>Inappropriate interventions and observations discontinued (e.g. BSL, blood pressure monitoring)</td>
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</table>

**Advance Care Planning**

- Current condition and commencement of EoLC discussed with resident / resident’s representative
- Issues surrounding intravenous/parenteral and PEG feeding have been discussed with the resident / resident's representative*
- Future care plan discussed with resident / resident’s representative* (e.g. transfer to hospital, use of antibiotics)
- 'Acute Resuscitation Plan' / 'Not for Resuscitation' order discussed and agreed to by resident / resident’s representative*

If recording a 'no' or 'pending' response, please document reasons for this on the multidisciplinary communication sheet to facilitate follow up action.

<table>
<thead>
<tr>
<th>Verbal (✓)</th>
<th>Print name</th>
<th>Title</th>
<th>Signature</th>
<th>Date</th>
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</table>

*substitute decision maker
### Section 3: Part A - Care Management

The following information may already be documented in the resident’s chart. Please check that the information in the chart is current and document any changes as necessary.

<table>
<thead>
<tr>
<th>Spiritual / Religious / Cultural Needs</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>Have the spiritual / religious / cultural needs of the resident been addressed?</td>
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<tr>
<td>Has the resident / resident’s representative* expressed a preferred Funeral Director?</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication with resident / resident’s representative*</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>Have contact details of resident’s representative* been updated?</td>
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<td>Have attempts been made to inform the resident’s representative* that the resident is dying?</td>
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<td>Have issues around impending death been discussed with resident’s representative*?</td>
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<tr>
<td>Has resident’s representative* been approached regarding grief and loss issues?</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Comfort Planning</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>Need for special mattress assessed?</td>
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<tr>
<td>Comfort Care Chart commenced?</td>
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<tr>
<td>Other (please state)</td>
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</tbody>
</table>

If recording a ‘no’ or ‘pending’ response, please document reasons for this on the multidisciplinary communication sheet to facilitate follow up action.

<table>
<thead>
<tr>
<th>Print name</th>
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<th>Signature</th>
<th>Date</th>
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</thead>
</table>

*substitute decision maker
**Section 3: Part B - Comfort Care Chart**

- Record an entry against each item, as appropriate
- Minimum documentation is 4 hourly, though
- Psychosocial issues may only need assessment twice daily
- Further Actions (F/A) taken, other than routine care (R/C) to be recorded on the 'Further Care Action Sheet' (Sec 3 Part C)
- A new chart is to be commenced each day

Score each box:  
- **A** = assessed and no action required  
- **F/A** = further action required  
- **R/C** = routine care  
- **N/A** = not applicable

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<tr>
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<th>0200</th>
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<tbody>
<tr>
<td><strong>Symptom Management</strong></td>
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<td>Agitation</td>
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<td>Nausea / vomiting</td>
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<td>Respiratory difficulties</td>
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<td>Rattly respirations</td>
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<td>Pain</td>
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<td>Subcutaneous cannula check</td>
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<td>Subcutaneous infusion check</td>
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<tr>
<td><strong>Routine Comfort Measures</strong></td>
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<td>Comfortable positioning</td>
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<td>Mouth care - clean and moist</td>
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<td>Eye care - clean and moist</td>
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<td>Skin care</td>
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<td>Micturition - dry and comfortable</td>
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<td>Any new concerns responded to</td>
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<td>Spiritual, religious, cultural needs / rituals identified and facilitated</td>
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Initials
### Section 3: Part B - Comfort Care Chart

- Record an entry against each item, as appropriate
- Minimum documentation is 4 hourly, though
- Psychosocial issues may only need assessment twice daily
- Further Actions (F/A) taken, other than routine care (R/C) to be recorded on the 'Further Care Action Sheet' (Sec 3 Part C)
- A new chart is to be commenced each day

**Score each box:**

<table>
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<td><strong>Symptom Management</strong></td>
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<td>Respiratory difficulties</td>
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<td>Subcutaneous cannula check</td>
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<td>Micturition - dry and comfortable</td>
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**Initials**
## Section 3: Part B - Comfort Care Chart

- Record an entry against each item, as appropriate
- Minimum documentation is 4 hourly, though
- Psychosocial issues may only need assessment twice daily
- Further Actions (F/A) taken, other than routine care (R/C) to be recorded on the 'Further Care Action Sheet' (Sec 3 Part C)
- A new chart is to be commenced each day

### Score each box:
- A = assessed and no action required
- F/A = further action required
- R/C = routine care
- N/A = not applicable

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Initials
# Section 3: Part B - Comfort Care Chart

- Record an entry against each item, as appropriate.
- Minimum documentation is 4 hourly, though Psychosocial issues may only need assessment twice daily.
- Further Actions (F/A) taken, other than routine care (R/C) to be recorded on the ‘Further Care Action Sheet’ (Sec 3 Part C).
- A new chart is to be commenced each day.

**Score each box:**

- **A** = assessed, and no action required
- **F/A** = further action required
- **R/C** = routine care
- **N/A** = not applicable

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### Symptom Management

- Agitation
- Nausea / vomiting
- Respiratory difficulties
- Rattly respirations
- Subcutaneous cannula check
- Subcutaneous infusion check

### Routine Comfort Measures

- Comfortable positioning
- Mouth care - clean and moist
- Eye care - clean and moist
- Skin care
- Micturition - dry and comfortable
- Bowel care

### Psychosocial

- Procedures explained
- Information regarding changes provided
- Any new concerns responded to
- Spiritual, religious, cultural needs / rituals identified and facilitated

**Initials**
Section 3: Part C - Further Care Action Sheet

- Please record Further Actions (F/A) taken on this sheet.
- If your facility uses medication stickers to record symptom management, they can be applied to this page.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>What occurred</th>
<th>Action taken</th>
<th>Initials</th>
<th>Time</th>
<th>Was action effective?</th>
<th>If ‘No’, what further action was taken?</th>
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Section 3: Part C - Further Care Action Sheet

Please record Further Actions (F/A) taken on this sheet.

If your facility uses medication stickers to record symptom management, they can be applied to this page.

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<tr>
<th>Date</th>
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<th>What occurred</th>
<th>Action taken</th>
<th>Initials</th>
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<th>If No*, what further action was taken?</th>
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*For illustrative purposes only

Contact HIU@health.qld.gov.au for information only - Provided for information only.
Section 4: Multidisciplinary Communication Sheet

Please use this sheet for documenting additional information and interventions.

<table>
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<tr>
<th>Date</th>
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Section 5: After Death Care

The following information may already be documented in the resident’s chart. Please check that the information in the chart is current and document any changes as necessary.

<table>
<thead>
<tr>
<th>Date of death:</th>
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<th>Time of death:</th>
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<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
<th>Date</th>
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- Resident’s representative* informed of death
- GP informed of death
- Procedures for ‘final act of care’ according to RACF policy
- Infusion device removed and returned
- Resident inventory completed
- Removal of deceased resident from RACF according to policy
- Staff / residents informed of death as appropriate
- Bereavement leaflet / information given to NOK or other
- Pharmacy informed of death
- Allied Health Professionals informed of death
- Loan equipment returned

If recording a ‘no’ or ‘pending’ response, please document reasons for this on the multidisciplinary communication sheet to facilitate follow up action.

<table>
<thead>
<tr>
<th>Print name</th>
<th>Title</th>
<th>Signature</th>
<th>Date</th>
<th>Time</th>
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* substitute decision maker
Appendix 3: Residential Care Facility Falls Assessment and Management Plan [29, 30]

Residential Care Facility
Falls Assessment and
Management Plan

Facility: ...........................................................................................................

Resident Information

URN:
Family name: 
Given name(s): 
Address: 
Date of birth: Sex: ☐ M ☐ F ☐ I

Residential Care Falls Assessment and Management Plan

Adult

• Complete this form within 24 hours of admission, when there is a change in condition, medication, or after a fall; and reassess as per local policy
• Care plans never replace clinical judgement. Care outlined must be altered if not clinically appropriate for the individual care recipient
• Every person documenting on the form must supply a sample of their initials in the signature log (page 2)

Falls Risk Assessment

Identify risk factors
Tick (✓) Yes or No
(If Yes to any, care recipient is ‘at risk’ of a fall)

If YES to any
Initiate actions
Tick when actioned (if indicated)

Risk Factors

Screen:
The care recipient has had a fall in the last 6 months
☐ Y ☐ N

The care recipient is observed to be unsteady
☐ N ☐ Y ☐ Y

The care recipient uses a non-prescribed mobility aid
☐ N ☐ N ☐ N

The care recipient has a neurological disorder that affects balance; or uses a mobility aid and has not been reviewed within 12 months
☐ Y ☐ Y ☐ Y

The care recipient is visually impaired
☐ Y ☐ Y ☐ N

The care recipient requires supervision or assistance with transfers or ADL
☐ Y ☐ Y ☐ Y

The care recipient has new onset incontinence
☐ Y ☐ Y ☐ Y

The care recipient has existing incontinence, frequency or requires assisted toileting
☐ N ☐ N ☐ N

The care recipient reports postural symptoms (e.g. regular dizziness, light headedness, recent history of syncope)
☐ Y ☐ Y ☐ Y

The care recipient is on one of the following medications: antihypertensive, antidepressant, sedative, benzodiazepine, antipsychotic
☐ Y ☐ Y ☐ Y

The care recipient is on more than 4 medications
☐ N ☐ N ☐ N

The care recipient has a minimal trauma fracture and / or history of osteoporosis
☐ N ☐ N ☐ N

The care recipient has new onset or increased confusion / delirium
☐ N ☐ N ☐ N

The care recipient is usually confused
☐ N ☐ N ☐ N

Following assessment, inform care recipient / carers of assessment outcome; and proceed to develop management plan (page 2)

Initial actions

Ensure glasses / visual aid is within reach
☐ N ☐ Y ☐ Y

Complete ADL assessment (if required)
☐ Y ☐ Y ☐ Y

• Refer to GP / Pharmacist for medication review (as appropriate)

Initiate toileting routine
☐ Y ☐ Y ☐ Y

Consider use of continence aids
☐ Y ☐ Y ☐ Y

Referral for continence assessment (as appropriate)
☐ Y ☐ Y ☐ Y

Measure lying and standing BP
☐ N ☐ N ☐ N

Refer to GP (as appropriate)
☐ Y ☐ Y ☐ Y

Refer to GP / Pharmacist for medication review (as appropriate)
☐ Y ☐ Y ☐ Y

Refer to Dietitian (where appropriate)
☐ Y ☐ Y ☐ Y

Refer to GP to assess causes of osteoporosis and treatment options (if appropriate)
☐ Y ☐ Y ☐ Y

Notify GP for further investigations
☐ Y ☐ Y ☐ Y

Conduct or refer for cognitive assessment
☐ Y ☐ Y ☐ Y

Conduct or refer for cognitive assessment
☐ Y ☐ Y ☐ Y

Following assessment, inform care recipient / carers of assessment outcome; and proceed to develop management plan (page 2)
Residential Care Facility
Falls Assessment and Management Plan

• Initial when strategies are implemented
• Care plans never replace clinical judgement. Care outlined must be altered if not clinically appropriate for the individual care recipient
• M indicates a variance from clinical care and must be documented in the clinical notes

Falls Prevention Management Plan

<table>
<thead>
<tr>
<th>Category</th>
<th>Date</th>
<th>Time</th>
<th>Communication</th>
<th>Environment / Equipment</th>
<th>Observations</th>
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<tbody>
<tr>
<td>Communication</td>
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<td></td>
<td>In partnership with care recipient and / or carer discuss falls risk factors and strategy to prevent falls</td>
<td>Orientate to surroundings, routine and location of bathroom and toilet</td>
<td>Ensure frequent rounding and surveillance</td>
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<td>Ensure clutter free and safe environment (e.g. night time lighting)</td>
<td>Consider supervision during toileting / showering / mobilisation</td>
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<td>Ensure the chair and bed height / position are suitable to the care recipient’s needs</td>
<td>Ensure suitable toileting protocols are in place</td>
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<td>Apply brakes to bed, wheelchair and commode correctly</td>
<td>Implement Allied Health recommendations</td>
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<td>Ensure bed rails are at appropriate height for care recipient’s needs, if prescribed</td>
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<td>Keep buzzer in reach; educate care recipient on buzzer usage</td>
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<td>Keep care recipient’s routine belongings within reach</td>
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<td>Keep care recipient’s routine belongings well maintained and within reach if applicable</td>
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<td>Review care recipient’s footwear / shoes for support and / or foot problems</td>
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Allied Health / Medical Review (e.g. MO, Physio, OT, Podiatry, Dietitian, Pharmacist)

Specific Care Recipient Centred Goal (e.g. prefers to wear closed in shoes when transferring / mobilising)

Other Care (specify)

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Page 2 of 2
RESIDENTIAL CARE FACILITY POST FALL CLINICAL PATHWAY

Immediate actions
- Commence DRSABCD (Danger, Response, Send for help, Airway, Breathing, CPR, Defibrillate - if available) or as per local procedure
- Call for assistance
- Do not move the resident until assessed for injuries and safety
- Observe for symptoms of head and / or muscular skeletal injury e.g. any change in behaviour, change in level of consciousness, headache or vomiting, any deterioration - call 000 where required and / or immediately verbally contact GP for advice

Details of fall and initial actions
Date: / / Time found: : Respiratory rate: O₂ Saturation: % Blood pressure: / Heart rate: GCS score: Temperature: °C BGL:
Was the resident unconscious? Yes No
Obvious major skeletal deformity / fracture / injury? Yes No
Major head trauma? Yes No
Did the resident show signs of increased confusion? Yes No

All care givers who initial are to sign signature log

Key
Medical Nursing

Category
Medical assessment
- Verbally contact the GP
  Who was notified? Date Time
  - Verbally notify the GP if any of the following applies to the resident:
    - Known coagulopathy
    - Fall from greater than 1 metre in height
    - On anticoagulant / antiplatelet therapy
    - Recent surgery / procedure
    - Other.

Investigations / observations
Document in observation chart at the following intervals
- Suspected head injury or unwitnessed fall
  What: neuro obs, respiratory rate, O₂ saturation, blood pressure, heart rate, BGL (as per local policy)
  When:
  - Day 1: 1st hourly for 1 hour, 2nd hourly for 6 hours, 3rd hourly for 6 hours, 4th hourly for 6 hours, 5th hourly for 24 hours
  - Day 2: 6th hourly for 24 hours
  - If there is a reduction in GCS score of ≥2 points or deterioration of observations (any change in behavior, headache, vomiting or indications of internal bleed) call 000 immediately and verbally contact GP immediately

- No head injury
  What: respiratory rate, O₂ saturation, blood pressure, heart rate, BGL (as per local policy)
  When:
  - 1st hourly for 4 hours, 2nd hourly for 6 hours, 3rd hourly for 8 hours
  - If normal -
  - Observations as per medical order

Management plan (within 24 hours)
- Notify family of incident as soon as possible (as agreed upon with family)
- Surgical intervention / treatment plan as per GP order
- Document incident and outcomes in care recipient’s clinical record
- Log incident report
- Communicate incident, outcomes and planned care at handover / transfer of care
- Review Falls Assessment and Management Plan

Signature log (every person documenting in this pathway must supply sample of their initials in the signature log below)

Initial Print name Designation Signature

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Contact: PSQIS_Comms@health.qld.gov.au
**Residential Care Facility Post Fall Clinical Pathway**

**Immediate actions**
- Commence DRSABCD (Danger, Response, Send for help, Airway, Breathing, CPR, Defibrillate - if available) or as per local procedure
- Call for assistance
- Do not move the resident until assessed for injuries and safety
- Observe for symptoms of head and/or muscular skeletal injury e.g. any change in behaviour, change in level of consciousness, headache or vomiting, any deterioration - call 000 where required and/or immediately verbally contact GP for advice

**Initial assessment**
- Document initial observations
  - respiratory rate, O₂ saturation, blood pressure, heart rate, GCS, temperature, Blood Glucose Level (BGL)
- Document the following:
  - consciousness
  - major head trauma
  - obvious major skeletal deformities / obvious fracture / injury
  - signs of confusion

**Medical assessment**
- Verbally notify GP to conduct assessment
- Verbally notify GP if any of the following apply to the resident:
  - known coagulopathy
  - on anticoagulant / antiplatelet therapy
  - fall from greater than 1 metre height
  - suspected head injury
  - recent surgery / procedure
- Document who was notified and when

**Investigations / observations**

**No head injury**
**What:**
- respiratory rate, O₂ saturation, blood pressure, heart rate, BGL (as per local policy)
**When:**
- ¼ hourly for 1 hour, if normal →
- ½ hourly for 2 hours, if normal →
- hourly for 8 hours, if normal →
- 2nd hourly for 6 hours,
- 4th hourly for 8 hours,
- observations as per medical order

**Suspected head injury or unwitnessed fall**
**What:**
- neuro obs, respiratory rate, O₂ saturation, blood pressure, heart rate, GCS (as per local policy)
**When - Day 1:**
- ¼ hourly for 1 hour, if normal →
- ½ hourly for 2 hours, if normal →
- hourly for 8 hours, if normal →
- 2nd hourly for 6 hours, if normal →
- 4th hourly for 8 hours,
- observations as per medical order
**When - Day 2:**
- 6th hourly for 24 hours,
- observations as per medical order

**Management plan (within 24 hours)**
Note that there may be late manifestations of head injury after 24 hours
- Notify family of incident (as agreed upon with family)
- Surgical intervention / treatment plan as per GP order
- Document incident and outcomes in resident’s clinical record
- Log incident report
- Communicate incident, outcomes and planned care at handover
- Review Falls Assessment and Management Plan

**Resident fall (witnessed or un-witnessed)**

**Investigations / observations**
- Verbally notify GP to conduct assessment
- Verbally notify GP if any of the following apply to the resident:
  - known coagulopathy
  - on anticoagulant / antiplatelet therapy
  - fall from greater than 1 metre height
  - suspected head injury
  - recent surgery / procedure
- Document who was notified and when
Appendix 4: Wound Assessment and Management resources [70]

**Assessment**
- Undertake a pressure injury risk assessment (e.g., Waterlow, Braden) on admission.
- Assess at regular intervals and upon a change in health status.
- If a patient is found to be at risk, assess skin at least daily.
- Suspected stage 1 pressure injuries should be reassessed 20 minutes after pressure is relieved.
- Regularly assess for pain and develop a pain management plan if appropriate.

**Wound Bed Management**
- Irrigate with warm, clean water or normal saline.
- Clean the wound gently.
- Remove necrotic or devitalised tissue.
- Select a dressing which will:
  - maintain a moist wound bed
  - protect the surrounding skin
  - minimise shear, friction & pressure
  - topical negative pressure may benefit stage III & IV ulcers

**Management**
- Use a high specification reactive or active support surface for clients with pressure injuries.
- Stage II, IV, unstable or deep tissue injuries require an alternating pressure, low air-loss, continuous low pressure system, or air-fluidized bed; close observation; and a repositioning regime.
- Avoid positioning directly on bony prominences or pressure injuries.
- Avoid shear and friction.
- Limit the amount of time the head of bed is elevated.
- Use pillows and foam wedges to elevate or reposition bony prominences e.g., heels, hips.
- Provide high protein nutritional supplements, including arginine, for those with a stage 2 or greater pressure injury.

**Prevention**
- Individuals found at risk should have a preventive plan in place.
- Provide a high specification foam or active support mattress for at risk clients.
- Off-load heels for at risk clients.
- Re-positioning regime upon a change in health status.
- Avoid potentially irritating substances on the skin.

**Risk factors for a Pressure Injury**
- Reduced physical mobility
- Loss of sensation
- Impaired cognition or level of consciousness
- Incontinence
- Poor nutrition or recent weight loss
- Dry skin or skin in constant contact with moisture
- Acute or severe illness
- End stage of life
- Sleep disorders
- Immobility
- Inability to communicate
- Limited sensory perception
- Limited mobility
- Limited cognitive function
- High weight
- Medications
- Edema
- Assess/document level of risk and risk factors present

**Stage I**
- Intact skin with non-blanchable redness of a localized area, usually over bony prominence.
- The area may be painful, firm, soft, warm or cooler as compared to adjacent tissue.

**Stage II**
- Partial thickness loss of skin appearing as a shallow open ulcer with a red or pink wound bed.
- May also present as an intact or open, shallow, serous, serous-effusive blister.
- The blister is shiny or a dry, shallow ulcer without slough or bruising (if blisters is present the blister indicates deep tissue injury).

**Stage III**
- Full thickness loss of skin involving subcutaneous tissue, muscle, tendon or bone.
- May also present as an intact or open, shallow, serous-effusive blister.
- The blister is shiny or a dry, shallow ulcer without slough or bruising (if blisters is present the blister indicates deep tissue injury).
- May include undermining and tunneling.

**Stage IV**
- Full thickness loss with exposed bone, tendon or muscle.
- Slough or eschar may be present.
- Often includes undermining and tunneling.
- Depth varies according to anatomical location.

**Suspected deep tissue injury**
- Ruptured or discolored area of subcutaneous intact skin or muscle tissue.
- May be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue.

**Unstageable/Unclassified**
- Suspected deep tissue injury.
- Full thickness tissue loss in which actual depth of the ulcer is completely obscured by slough and/or eschar.
- Slough cannot be determined until slough and/or eschar is removed.

References:
- AAWC. Champions for Skin Integrity. Malvern, PA: AAWC 2010
- RNAO. Risk assessment and prevention of pressure ulcers (Revised). Toronto, ON: RNAO 2011
- NICE. The use of pressure-relieving devices for the prevention of pressure ulcers. London: RCN and NICE 2005

For more information, contact HIU@health.qld.gov.au.
Skin Tear Management Flow Chart

**Assessment**
- All clients should have a risk assessment for skin tears on admission
- Assess and document skin tears using a recognised assessment and classification system e.g. STAR
- Assess the surrounding skin for swelling, discolouration or bruising

If skin flap is pale, dusky or darkened:
- Reassess in 24-48 hours or at the first dressing change
- *Assessment should only be undertaken by trained staff*

*Carville et al. 2007*

**Management**
- Control bleeding
- Cleanse the wound gently with warm water or normal saline, pat dry
- Realign edges if possible - do not stretch the skin
- Use a moist cotton-tip to roll skin into place
- Apply a low adherent, soft-silicone dressing to wound, overlapping the wound by at least 2 cm
- Draw arrows on the dressing to indicate the direction of dressing removal
- Mark the date on the dressing
- Apply limb protector

**Prevention**
- Assess skin regularly and implement a prevention protocol for those at risk
- Use soap-free bathing products
- Apply moisturiser twice daily
- Use correct lifting and positioning techniques
- Avoid using rings that may snag the skin
- Protect fragile skin with either limb protectors or long sleeves or pants
- Pad or cushion equipment and furniture
- Avoid using tapes or adhesives, use tubular retention bandages to secure dressings

References:
- Joanna Briggs Institute, *Topical skin care in aged care facilities. Best Practice*, 2007. 11(3)
- Wounds UK. *Best Practice Statement: Care of the Older Person’s Skin Wounds UK 2012*, 2nd ed.

This project is funded by the Australian Government Department of Health with Assistance from the Encouraging Better Practice in Aged Care (EBPAC) program.

**Risk factors for a Skin Tear**
- History of previous skin tears
- Bruising, discoloured, thin or fragile skin
- Cognitive impairment / dementia
- Impaired sensory perception
- Dependency
- Multiple or high risk medications e.g. steroids, anticoagulants
- Impaired mobility
- Poor nutritional status
- Dry skin / dehydration
- Presence of friction, shearing and/or pressure

**STAR classification system**
- **Category 1a**
  - A skin tear where the edges can be realigned to the normal anatomical position (without undue stretching) and the skin or flap colour is not pale, dusky or darkened.
- **Category 1b**
  - A skin tear where the edges can be realigned to the normal anatomical position (without undue stretching) and the skin or flap colour is pale, dusky or darkened.
- **Category 2a**
  - A skin tear where the edges cannot be realigned to the normal anatomical position and the skin or flap colour is not pale, dusky or darkened.
- **Category 2b**
  - A skin tear where the edges cannot be realigned to the normal anatomical position and the skin or flap colour is pale, dusky or darkened.
- **Category 3**
  - A skin tear where the skin flap is completely absent.

Skin Tear Audit Research (STAR), Silver Chain Nursing Association and School of Nursing and Midwifery, Curtin University of Technology. Revised 4/2/2010

**Document**
- Level of risk and risk factors present
- Prevention strategies
- Management strategies
- Category of skin tears, size, location, tissue type, exudate, surrounding skin
- Progress and outcome of interventions

promoting healthy skin
Champions for Skin Integrity

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- Prevention strategies
- Management strategies
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**References:**
- Joanna Briggs Institute, Topical skin care in aged care facilities. Best Practice, 2007. 11(3)
- Wounds UK. Best Practice Statement: Care of the Older Person’s Skin Wounds UK 2012, 2nd ed.
Arterial Leg Ulcer Flow Chart

**Assessment**
- **History**
  - Medical
  - Medications
  - Wound
  - Psychosocial / activities of daily living

**Characteristics of the wound** (see table below)

**Diagnostic investigations**
All patients with a leg ulcer should be screened for arterial disease, including an Ankle Brachial Pressure Index (ABPI).

*Assessment should only be undertaken by a trained health professional*

**Wound Bed Management**
- **Cleanse the wound gently with warm water or normal saline. Pat dry.**
- **In general, debride necrotic or devitalised tissue; however, do not debride dry gangrene or eschar.**
- **Debridement should be undertaken only by a trained health professional.**
- **Maintain a moist wound environment, however if dry gangrene or eschar is present; it is best left dry.**
- **Topical antimicrobial dressings may be beneficial when wounds are chronically or heavily colonised.**

**Management**
- **Promote oxygenation through avoidance of:**
  - smoking
  - dehydration
  - cold
  - stress and pain
- **Refer to vascular surgeon for restoration of blood flow by revascularisation, if appropriate.**
- **Ensure optimal pain management strategies.**

**Prevention**
- **Reduce risk factors:**
  - cease smoking
  - control diabetes mellitus
  - control elevated lipids
  - control hypertension
  - anti-platelet therapy
  - control weight
- **Refer to vascular surgeon for assessment if appropriate.**
- **Exercise the lower limbs.**
- **Protect legs and feet:**
  - ensure soft, conforming, proper fitting shoes
  - refer to podiatrist for general footcare, orthotics and offloading as necessary
  - protect legs (e.g. padded equipment, long clothing)
  - use pressure relief devices e.g. high density foam or air cushion boots for those with limited mobility
- **Keep the legs warm (e.g. socks, rugs).**
- **Eat a nutritious diet.**

**Characteristics of an Arterial Leg Ulcer**
- **Arterial leg ulcers typically:**
  - Occur on the anterior shin, ankle bones, heels or toes
  - Have pain which is relieved when legs are lowered below the level of the heart
  - Have ‘punched out’ wound edges
  - May have mummified or dry and black toes

- **The surrounding skin or tissue often has:**
  - Shiny or dry skin
  - Devitalised soft tissue with dry or wet crust
  - Thickened toe nails
  - A purplish colour when the leg is lowered to the ground
  - Loss of hair
  - Cool skin

**When to Refer**
- **uncertainty of diagnosis**
- a low ABPI < 0.8 or a high ABPI > 12
- symptoms impact on quality of life
- multiple aetiology
- signs of infection
- ulcer appears ischaemic
- failure to heal

**References:**
- Scottish Intercollegiate Guidelines Network. Diagnosis and management of peripheral arterial disease 2006. Edinburgh: SIGN
- National Clinical Guideline Centre, Lower limb peripheral arterial disease. Diagnosis and management. NICE Clinical Guideline 147, 2012: London
- RNAO, Assessment and management of foot ulcers for people with diabetes. 2005

This project is funded by the Australian Government Department of Health and Ageing under the Encouraging Better Practice in Aged Care (EBPAC) program.
**Venous Leg Ulcer Flow Chart**

**Assessment**

**History**
- Medical
- Medications
- Wound
- Psychosocial / activities of daily living

**Characteristics of the wound** (see table below)

**Diagnostic investigations:**
- All patients with a leg ulcer should be screened for arterial disease, including an Ankle Brachial Pressure Index (ABPI)*
- Reassess the ABPI every 3 months or if clinically indicated

* Compression therapy is contraindicated if the ABPI is <0.8 or >1.2

* Assessment should only be undertaken by a trained health practitioner

**Wound Bed Management**

- Irrigate with warm water or normal saline. Pat dry
- Clean the wound gently (avoid mechanical trauma)
- Remove necrotic or devitalised tissue (e.g., autolytic debridement)
- EMLA® cream can reduce pain associated with debridement
- Mechanical or sharp debridement should only be done by a trained practitioner

**Select a dressing that will:**
- maintain a moist wound bed
- manage wound exudate
- protect the surrounding skin

**Management**

- Multilayered high compression therapy should be applied following diagnosis of an uncomplicated venous leg ulcer
- Compression therapy should only be applied by a trained practitioner
- Check ankle circumference measures more than 18cm
- Apply moisturiser to the lower limb
- Apply padding over bony prominences
- Apply compression system as per manufacturers’ guidelines
- Remove bandaging if there is:
  - slippage of bandage
  - decreased sensation of lower limb
  - toes go blue or purple, or leg swells above or below the bandage
  - increased pain in the foot or calf muscle that is unreleived by leg elevation for 30 minutes above heart level
  - increased shortness of breath or difficulty breathing

**When to Refer**

**Uncertainty in diagnosis**
- Complex ulcers (multiple etiology)
- ABPI <0.8 or >1.2
- No reduction in wound size within 4 weeks after starting compression
- Deterioration of ulcer
- Signs of infection
- Failure to improve after 3 months

**Referral should only be undertaken by a trained health practitioner**

**Prevention**

- Use of compression stockings for life reduces leg ulcer recurrence (Class 3 (40mm Hg) if tolerated, or highest level tolerated)
- A trained practitioner should fit compression stockings

- Replace compression stockings every 6 months
- Provide education to clients and carers on compression stocking application and removal techniques
- Refer to vascular surgeon if appropriate
- Monitor regularly, every 3 months
- Apply moisturiser twice daily
- Elevate the affected limb above heart level daily
- Encourage ankle and calf muscle exercises
- Repeat Doppler ABPI every 3 months, or whenever changing the type of compression therapy

**Characteristics of a Venous Leg Ulcer**

- Venous leg ulcers typically occur on the lower third of the leg
- Have pain usually relieved by elevation of the legs above heart level
- Are shallow and have irregular, sloping wound margins
- Produce moderate to heavy exudate

- The surrounding skin often has:
  - Haemosiderin (brown) staining
  - Hyperkeratosis (dry, flaky skin)
  - Venous stasis eczema
  - Inverted champagne bottle leg appearance

- Use of compression stockings for life reduces leg ulcer recurrence (Class 3 (40mm Hg) if tolerated, or highest level tolerated)
- A trained practitioner should fit compression stockings

- Replace compression stockings every 6 months
- Provide education to clients and carers on compression stocking application and removal techniques
- Refer to vascular surgeon if appropriate
- Monitor regularly, every 3 months
- Apply moisturiser twice daily
- Elevate the affected limb above heart level daily
- Encourage ankle and calf muscle exercises
- Repeat Doppler ABPI every 3 months, or whenever changing the type of compression therapy

**References:**

This project is funded by the Australian Government Department of Health and Ageing under the Encouraging Better Practice in Aged Care (EBPAC) program.
Diabetic Foot Ulcer Flow Chart

Assessment
- **History**
  - Medical
  - Medications
  - Wound
  - Psychosocial / activities of daily living
- **Characteristics of the wound**
  - Use a validated classification tool
- **Inspect for foot deformities**
- **Diagnostic investigations**
  - Screen all clients for peripheral arterial disease (PAD), including an ankle brachial pressure (ABPI)
  - An ABPI less than 0.9 indicates arterial disease
  - ABPI greater than 1.2 indicates a need for further investigation
  - Use monofilament testing to assess for loss of sensation and neuropathy
  - *Assessment should only be undertaken by a trained health professional*

Characteristics of a Diabetic Foot Ulcer
- Diabetic ulcers typically:
  - Occur on the sole of the foot or over pressure points e.g. toes
  - The wound bed can be shallow or deep, producing low to moderate amounts of exudate
  - The surrounding skin is usually dry, thin and frequently has callous formation

Wound Bed Management
- Cleanse the wound with a neutral, non-injurious solution e.g. warm water or normal saline
- Cleanse wound bed gently to avoid trauma
- Remove necrotic or devitalised tissue, unless revascularisation is needed
- Mechanical or sharp debridement should only be done by a trained health professional
- Select a dressing which will:
  - Maintain a moist wound environment (except where dry gangrene or eschar is present)
  - Protect the surrounding skin
  - Manage wound exudate
  - Topical antimicrobial dressings will help chronically or heavily colonised wounds

Management
- Reduce pressure – offload pressure points e.g. use crutches, wheelchairs, custom shoes or inserts, orthotic walkers, diabetic boots, or total contact casts
- Promote oxygenation of the wound by avoiding dehydration, smoking, cold, stress and pain
- Optimise glucose control
- Regularly document progress in healing
- Re-evaluate treatment if failure to achieve 40% ulcer size reduction after 4 weeks
- A multidisciplinary team is needed; include podiatrists, orthotists, dietitians, GPs, wound care nurses and endocrinologists
- Consult remote expert advice with digital imaging for clients living in remote areas

Prevention
- Assess all clients with diabetes for PAD, neuropathy and foot deformity and classify the level of risk
- Protective footwear is required for those at risk, i.e. with PAD, neuropathy, callus, foot deformity and/or previous ulceration
- Offload pressure points as detailed under ‘Management’
- Practise good foot care and daily inspection of feet
- Ensure an annual foot examination by a health professional (3 – 6 monthly if at moderate or high risk)
- Monitor and optimise blood glucose levels
- Quit smoking

When to Refer
- Uncertainty of diagnosis
- There is a low or high ABPI
- Symptoms impact on quality of life
- Complicated ulcers e.g. multiple aetiology
- Signs of infection or wound probes to bone
- No progress in healing or deterioration of ulcer

**References:**
- National Evidence-Based Guideline on Prevention, Identification and Management of Foot Complications in Diabetes. Melbourne Australia 2011
- RNAO Assessment and Management of Foot Ulcers for People with Diabetes. Toronto: RNAO 2005
- McIntosh A et al. Prevention and Management of Foot Problems in Type 2 Diabetes. Sheffield: NICE 2003
References


7. Princess Alexandra Hospital Assessment and management of cellullitis in the Emergency Department guideline: a collaboration between Infection Management Services, Internal Medicine, MAPU and the Department of Emergency Medicine, March 2012.


70. Promoting Healthy Skin: Champions for skin integrity. QUT & Institute of Health & Biochemical Innovation. Australian Government DOHA.